CONTENTS OF VOLUME 37

JANUARY 2001 VOLUME 37 NUMBER 1

REVIEW ARTICLES

1 **Should an Angiotensin-Converting Enzyme Inhibitor Be Standard Therapy for Patients With Atherosclerotic Disease?** *James H. O'Keefe, Mark Wetzel, Richard R. Moe, Kathleen Brosnahan, Carl J. Lavie*

9 **Shifting the Open-Artery Hypothesis Downstream: The Quest for Optimal Reperfusion** *Matthew T. Roe, E. Magnus Ohman, Arthur C. P. Maas, Robert H. Christenson, Kenneth W. Mahaffey, Christopher B. Granger, Robert A. Harrington, Robert M. Califf, Mitchell W. Krucoff*

CLINICAL STUDIES

MYOCARDIAL INFARCTION

19 **Non–Q-Wave Myocardial Infarction Following Thrombolytic Therapy: A Comparison of Outcomes in Patients Randomized to Invasive or Conservative Post-Infarct Assessment Strategies in the Veterans Affairs Non-Q-Wave Infarction Strategies In-Hospital (VANQWISH) Trial** *Laura F. Wexler, Alvin S. Blaustein, Philip W. Lavori, Kenneth G. Lehmann, Michael Wade, William E. Boden, for the Veterans Affairs Non–Q-Wave Infarction Strategies in Hospital (VANQWISH) Trial Investigators*

26 Editorial Comment **Is ST Segment Elevation Non–Q-Wave Myocardial Infarction After Thrombolytic Therapy a New Clinical Entity That Requires an Invasive Management Strategy?** *Bernard R. Chaitman, Saad R. Bitar*

30 **Early Assessment of Regional Myocardial Blood Flow and Metabolism in Thrombolysis in Myocardial Infarction Flow Grade 3 Reperfused Myocardial Infarction Using Carbon-11–Acetate** *Alex F. Maes, Frans Van de Werf, Liesbet V. Mesotten, Patrick B. Flamen, Ronald S. Kuzo, Johan L. Nuyts, Luc Mortelmans*

37 **Impact of Right Ventricular Involvement on Mortality and Morbidity in Patients With Inferior Myocardial Infarction** *Shamir R. Mehta, John W. Eikelboom, Madhu K. Natarajan, Rafael Diaz, Cheelong Yi, Raymond J. Gibbons, Salim Yusuf*

44 **Course and Prognostic Implications of QT Interval and QT Interval Variability After Primary Coronary Angioplasty in Acute Myocardial Infarction** *Hendrik Bonnemeier, Franz Hartmann, Uwe K. H. Wiegand, Frank Bode, Hugo A. Katus, Gert Richardt*

INTERVENTIONAL CARDIOLOGY

51 **Argentine Randomized Study: Coronary Angioplasty With Stenting Versus Coronary Bypass Surgery in Patients With Multiple-Vessel Disease (ERACI II): 30-Day and One-Year Follow-up Results** *Alfredo Rodriguez, Victor Bernardi, Jose Navia, Julio Baldi, Liliana Grinfeld, Jorge Martinez, Daniel Vogel, Roberto Grinfeld, Alejandro Delacasa, Marcelo Garrido, Raul Oliveri, Eduardo Mele, Igor Palacios, William O'Neill, for the ERACI II Investigators*

59 Editorial Comment **Present-Day PTCR Versus CABG: A Randomized Comparison With a Different Focus and a New Result** *Thomas J. Ryan*

63 **Impact of Coronary Artery Remodeling on Clinical Presentation of Coronary Artery Disease: An Intravascular Ultrasound Study** *Mamoo Nakamura, Hideo Nishikawa, Sei Mukai, Morimichi Setsuda, Kazuki Nakajima, Hiroya Tamada, Hiroyuki Suzuki, Takahiro Ohnishi, Yutaka Kakuta, Takeshi Nakano, Alan C. Yeung*

70 **Arterial Remodeling Influences the Development of Intimal Hyperplasia After Stent Implantation** *Akihiro Endo, Haruo Hirayama, Osamu Yoshida, Tomoharu Arakawa, Takashi Akima, Takumi Yamada, Mamoru Nanasato*

76 **Angioplasty Increases Coronary Sinus F_2-Isoprostane Formation: Evidence for In Vivo Oxidative Stress During PTCA** *Luigi Iuliano, Domenico Praticò, Cesare Greco, Enrico Mangieri, Giovanni Scibilia, Garret A. FitzGerald, Francesco Violi*

CORONARY ARTERY DISEASE

81 **No Difference in Cardiac Event-Free Survival Between Positron Emission Tomography–Guided and Single-Photon Emission Computed Tomography–Guided Patient Management: A Prospective, Randomized Comparison of Patients With Suspicion of Jeopardized Myocardium** *Hans-Marc J. Siebelink, Paul K. Blanksma, Harry J. G. M. Crijns, Jeroen J. Bax, Ad J. van Boven, Tsjerk Kingma, D. Albertus Piers, Jan Pruim, Piet L. Jager, Willem Vaalburg, Ernst E. van der Wall*

89 Editorial Comment **Testing Our Tests: Surrogate End Points Versus Driving Patient Management and Outcomes** *James E. Udelson*

93 **Enhanced External Counterpulsation Improves Exercise Tolerance, Reduces Exercise-Induced Myocardial Ischemia and Improves Left Ventricular Diastolic Filling in Patients With Coronary Artery Disease** *Hisashi Urano, Hisao Ikeda, Takafumi Ueno, Takahiro Matsumoto, Toyoaki Murohara, Tsutomu Imaizumi*

100 **Energy Stores and Metabolites in Chronic Reversibly and Irreversibly Dysfunctional Myocardium in Humans** *Henrik Wiggers, Morten Noreng, Peter K. Paulsen, Morten Bøttcher, Henrik Egeblad, Torsten T. Nielsen, Hans Erik Bøtker*

109 **Absolute Quantitation of Coronary Steal Induced by Intravenous Dipyridamole** *Olakunle O. Akinboboye, Olajide Idris, Ru-Ling Chou, Robert R. Sciacca, Paul J. Cannon, Steven R. Bergmann*

117 **N-acetylcysteine Improves Coronary and Peripheral Vascular Function** *Neil P. Andrews, Abhiram Prasad, Arshed A. Quyyumi*

CORONARY PHYSIOLOGY

124 **Myocardial Perfusion in Patients With Permanent Ventricular Pacing and Normal Coronary Arteries** *Emmanuel I. Skalidis, George E. Kochiadakis,*

Sophia I. Koukouraki, Stavros I. Chrysostomakis, Nikolaos E. Igoumenidis, Nikolaos S. Karkavitsas, Panos E. Vardas

130 **Comparison of Myocardial Blood Flow During Dobutamine-Atropine Infusion With That After Dipyridamole Administration in Normal Men** *Eiji Tadamura, Hidehiro Iida, Keiichi Matsumoto, Marcelo Mamede, Shigeto Kubo, Hiroshi Toyoda, Toshiki Shiozaki, Takahiro Mukai, Yasuhiro Magata, Junji Konishi*

137 **The Physiological Role of Endogenous Endothelin in the Regulation of Human Coronary Vasomotor Tone** *Philip A. MacCarthy, Nicholas C. Pegge, Bernard D. Prendergast, Ajay M. Shah, Peter H. Groves*

EXERCISE TESTING

144 **When to Stress Patients After Coronary Artery Bypass Surgery? Risk Stratification in Patients Early and Late Post-CABG Using Stress Myocardial Perfusion SPECT: Implication of Appropriate Clinical Strategies** *Michael J. Zellweger, Howard C. Lewin, Shenghan Lai, Eric A. Dubois, John D. Friedman, Guido Germano, Xingping Kang, Tali Sharir, Daniel S. Berman*

153 **Age-Predicted Maximal Heart Rate Revisited** *Hirofumi Tanaka, Kevin D. Monahan, Douglas R. Seals*

ELECTROPHYSIOLOGY

157 **Heart Rate Variability and Early Recurrence of Atrial Fibrillation After Electrical Cardioversion** *Federico Lombardi, Andrea Colombo, Barbara Basilico, Romana Ravaglia, Massimo Garbin, Daniele Vergani, Pier Maria Battezzati, Cesare Fiorentini*

HYPERTENSION

163 **Should Diastolic and Systolic Blood Pressure Be Considered for Cardiovascular Risk Evaluation: A Study in Middle-Aged Men and Women** *Athanase Benetos, Frederique Thomas, Michel E. Safar, Kathryn E. Bean, Louis Guize*

169 **Contrasting Clinical Properties and Exercise Responses in Obese and Lean Hypertensive Patients** *Michael A. Weber, Joel M. Neutel, David H. G. Smith*

175 **Effect of the Angiotensin II Type 2-Receptor Gene (+1675 G/A) on Left Ventricular Structure in Humans** *Roland E. Schmieder, Jeanette Erdmann, Christian Delles, Johannes Jacobi, Eckart Fleck, Karl Hilgers, Vera Regitz-Zagrosek*

HEART FAILURE

183 **Independent and Additive Prognostic Value of Right Ventricular Systolic Function and Pulmonary Artery Pressure in Patients With Chronic Heart Failure** *Stefano Ghio, Antonello Gavazzi, Carlo Campana, Corinna Inserra, Catherine Klersy, Roberta Sebastiani, Eloisa Arbustini, Franco Recusani, Luigi Tavazzi*

HEART TRANSPLANT

189 **Factors Affecting Long-Term Survival (>10 Years) After Cardiac Transplantation in the Cyclosporine Era** *Ranjit John, Hiranya A. Rajasinghe, Silviu Itescu, Sanjeev Suratwalla, Katherine Lietz, Alan D. Weinberg, Alfred Kocher, Donna M. Mancini, Ronald E. Drusin, Mehmet C. Oz, Craig R. Smith, Eric A. Rose, Niloo M. Edwards*

195 **Heart Failure Etiology Affects Peripheral Vascular Endothelial Function After Cardiac Transplantation** *Ayan R. Patel, Jeffrey T. Kuvin, Natesa G. Pandian, John J. Smith, James E. Udelson, Michael E. Mendelsohn, Marvin A. Konstam, Richard H. Karas*

RHEUMATIC FEVER

201 **Left Ventricular Mechanics During and After Acute Rheumatic Fever: Contractile Dysfunction Is Closely Related to Valve Regurgitation** *Thomas L. Gentles, Steven D. Colan, Nigel J. Wilson, Renelle Biosa, John M. Neutze*

HYPERTROPHIC CARDIOMYOPATHY

208 **Echocardiographic Insights Into the Mechanisms of Relief of Left Ventricular Outflow Tract Obstruction After Nonsurgical Septal Reduction Therapy in Patients With Hypertrophic Obstructive Cardiomyopathy** *Ramiro Flores-Ramirez, Nasser M. Lakkis, Katherine J. Middleton, Donna Killip, William H. Spencer, III, Sherif F. Nagueh*

VENOUS THROMBOEMBOLISM

215 **G20210A Mutation in the Prothrombin Gene and the Risk of Recurrent Venous Thromboembolism** *J. Shawn Miles, Joseph P. Miletich, Samuel Z. Goldhaber, Charles H. Hennekens, Paul M. Ridker*

AUTONOMIC DYSFUNCTION

219 **Ambulatory Norepinephrine Treatment of Severe Autonomic Orthostatic Hypotension** *Olaf Oldenburg, Anna Mitchell, Jens Nürnberger, Susanne Koeppen, Raimund Erbel, Thomas Philipp, Andreas Kribben*

ANABOLIC STEROIDS

224 **Androgenic Anabolic Steroids and Arterial Structure and Function in Male Bodybuilders** *Mark A. Sader, Kaye A. Griffiths, Robyn J. McCredie, David J. Handelsman, David S. Celermajer*

PEDIATRIC CARDIOLOGY

231 **Inducibility of Intra-atrial Reentrant Tachycardia After the First Two Stages of the Fontan Sequence** *Ian H. Law, Peter S. Fischbach, Caren Goldberg, Ralph S. Mosca, Edward L. Bove, Thomas R. Lloyd, Albert P. Rocchini, Macdonald Dick II*

238 **Congenital Heart Block: Development of Late-Onset Cardiomyopathy, a Previously Underappreciated Sequela** *Jeffrey P. Moak, Karyl S. Barron, Thomas J. Hougen, Henry B. Wiles, Seshadri Balaji, Narayanswami Sreeram, Mark H. Cohen, Aaron Nordenberg, George F. Van Hare, Richard A. Friedman, Maria Perez, Frank Cecchin, Daniel S. Schneider, Rodrigo A. Nehgme, Jill P. Buyon*

243 **Late Rejection Is a Predictor of Transplant Coronary Artery Disease in Children** *Neda F. Mulla, Joyce K. Johnston, Laura Vander Dussen, W. Lawrence Beeson, Richard E. Chinnock, Leonard L. Bailey, Ranae L. Larsen*

251 **Reconstruction of Stenotic or Occluded Iliofemoral Veins and Inferior Vena Cava Using Intravascular Stents: Re-establishing Access for Future Cardiac Catheterization and Cardiac Surgery** *Frank F. Ing, Thomas E. Fagan, Ronald G. Grifka, Sandra Clapp, Michael R. Nihill, Mark Cocalis, James Perry, James Mathewson, Charles E. Mullins*

258 **The Amplatzer Duct Occluder: Experience in 209 Patients** *Aziz A. Bilkis, Mazeni Alwi, Samion Hasri,*

Abdul L. Haifa, Kandhavello Geetha, Muhammad A. Rehman, Ishak Hasanah

EXPERIMENTAL STUDIES

262 **Quantitative Assessment of Myocardial Perfusion During Graded Coronary Stenosis by Real-Time Myocardial Contrast Echo Refilling Curves** *Hisashi Masugata, Barry Peters, Stephane Lafitte, G. Monet Strachan, Koji Ohmori, Anthony N. DeMaria*

270 **Improvement of Afterload Mismatch of Left Atrial Booster Pump Function With Positive Inotropic Agent** *Hisanori Sakai, Hideki Kunichika, Kazuya Murata, Kohzaburo Seki, Kazuhiro Katayama, Takafumi Hiro, Toshiro Miura, Masunori Matsuzaki*

278 **Hemodynamic Determinants of the Mitral Annulus Diastolic Velocities by Tissue Doppler** *Sherif F. Nagueh, Huabin Sun, Helen A. Kopelen, Katherine J. Middleton, Dirar S. Khoury*

286 **Sildenafil Citrate (Viagra) Does Not Exacerbate Myocardial Ischemia in Canine Models of Coronary Artery Stenosis** *Karin Przyklenk, Robert A. Kloner*

293 **Renin Angiotensin System-Dependent Hypertrophy as a Contributor to Heart Failure in Hypertensive Rats: Different Characteristics from Renin Angiotensin System-Independent Hypertrophy** *Yasushi Sakata, Tohru Masuyama, Kazuhiro Yamamoto, Reiko Doi, Toshiaki Mano, Tsunehiko Kuzuya, Takeshi Miwa, Hiroshi Takeda, Masatsugu Hori*

300 **Beta-Adrenoceptor Stimulation Attenuates the Hypertrophic Effect of Alpha-Adrenoceptor Stimulation in Adult Rat Ventricular Cardiomyocytes** *Matthias Schäfer, Klaus Pönicke, Ingrid Heinroth-Hoffmann, Otto-Erich Brodde, Hans Michael Piper, Klaus-Dieter Schlüter*

308 **Multiple Endothelial Injury in Epicardial Coronary Artery Induces Downstream Microvascular Spasm as well as Remodeling Partly via Thromboxane A_2** *Shu-ichi Saitoh, Futoshi Onogi, Kazuhiko Aikawa, Mitsuru Muto, Tomiyoshi Saito, Kazuhira Maehara, Yukio Maruyama*

316 **Interaction Between Paracrine Tumor Necrosis Factor-Alpha and Paracrine Angiotensin II During Myocardial Ischemia** *Inna Frolkis, Jacob Gurevitch, Yael Yuhas, Adrian Iaina, Yoram Wollman, Tamara Chernichovski, Yosef Paz, Menachem Matsa, Dimitri Pevni, Amir Kramer, Itzhak Shapira, Rephael Mohr*

EDITOR'S PAGE

323 **Why Did *JACC* Reject My Manuscript?** *William W. Parmley*

SPECIAL SECTIONS

ACC News

325 **President's Page: Enhancing the College's Advocacy Efforts** *George A. Beller*

328 **LETTERS TO THE EDITOR**

339 **CORRECTIONS**

Consensus Conference Report

340 **Mechanical Cardiac Support 2000: Current Applications and Future Trial Design, June 15–16, 2000, Bethesda, Maryland** *Lynne Warner Stevenson, Conference Co-Chair, Robert L. Kormos, Conference Co-Chair*

FEBRUARY 2001 VOLUME 37 NUMBER 2

REVIEW ARTICLE

371 **Epidemiology and Natural History of Atrial Fibrillation: Clinical Implications** *Sumeet S. Chugh, Joseph L. Blackshear, Win-Kuang Shen, Stephen C. Hammill, Bernard J. Gersh*

CLINICAL STUDIES

HEART FAILURE

379 **Utility of B-Type Natriuretic Peptide in the Diagnosis of Congestive Heart Failure in an Urgent-Care Setting** *Quyen Dao, Padma Krishnaswamy, Radmila Kazanegra, Alex Harrison, Rambod Amirnovin, Leslie Lenert, Paul Clopton, Joel Alberto, Patricia Hlavin, Alan S. Maisel*

386 **A Rapid Bedside Test for B-Type Peptide Predicts Treatment Outcomes in Patients Admitted for Decompensated Heart Failure: A Pilot Study** *Van Cheng, Radmila Kazanagra, Alex Garcia, Leslie Lenert, Padma Krishnaswamy, Nancy Gardetto, Paul Clopton, Alan Maisel*

392 **Endothelial Dysfunction in Patients With Chronic Heart Failure: Systemic Effects of Lower-Limb Exercise Training** *Axel Linke, Nina Schoene, Stephan Gielen, Jürgen Hofer, Sandra Erbs, Gerhard Schuler, Rainer Hambrecht*

398 **Modulation of Alveolar-Capillary Sodium Handling as a Mechanism of Protection of Gas Transfer by Enalapril, and Not by Losartan, in Chronic Heart Failure** *Marco Guazzi, Piergiuseppe Agostoni, Maurizio D. Guazzi*

CARDIOMYOPATHY

407 **Dilated Cardiomyopathy in Dialysis Patients—Beneficial Effects of Carvedilol: A Double-Blind, Placebo-Controlled Trial** *Gennaro Cice, Luigi Ferrara, Attilio Di Benedetto, Pina Elvira Russo, Giancarlo Marinelli, Francesco Pavese, Aldo Iacono*

412 **Effect of Beta-Blockers on Circulating Levels of Inflammatory and Anti-Inflammatory Cytokines in Patients With Dilated Cardiomyopathy** *Tomoaki Ohtsuka, Mareomi Hamada, Go Hiasa,*

Osamu Sasaki, Makoto Suzuki, Yuji Hara, Yuji Shigematsu, Kunio Hiwada

418 **Autoantibodies Against the Second Extracellular Loop of Beta$_1$-Adrenergic Receptors Predict Ventricular Tachycardia and Sudden Death in Patients With Idiopathic Dilated Cardiomyopathy** *Michikado Iwata, Tsutomu Yoshikawa, Akiyasu Baba, Toshihisa Anzai, Hideo Mitamura, Satoshi Ogawa*

ATHEROSCLEROSIS

425 **Estrogen-Induced Small Low Density Lipoprotein Particles May Be Atherogenic in Postmenopausal Women** *Akihiko Wakatsuki, Nobou Ikenoue, Yuji Okatani, Takao Fukaya*

431 Editorial Comment **Estrogens, Lipids and Cardiovascular Disease: No Easy Answers** *Vera Bittner*

434 **Lipoprotein(a) Further Increases the Risk of Coronary Events in Men With High Global Cardiovascular Risk** *Arnold von Eckardstein, Helmut Schulte, Paul Cullen, Gerd Assmann*

440 **Irbesartan, an Angiotensin Type 1 Receptor Inhibitor, Regulates Markers of Inflammation in Patients With Premature Atherosclerosis** *Sushant Navalkar, Sampath Parthasarathy, Nalini Santanam, Bobby V. Khan*

445 **Periodontal Disease and Risk of Subsequent Cardiovascular Disease in U.S. Male Physicians** *T. Howard Howell, Paul M. Ridker, Umed A. Ajani, Charles H. Hennekens, William G. Christen*

CORONARY ARTERY DISEASE

451 **Correlation of Coronary Calcification and Angiographically Documented Stenoses in Patients With Suspected Coronary Artery Disease: Results of 1,764 Patients** *Ralph Haberl, Alexander Becker, Alexander Leber, Andreas Knez, Christoph Becker, Christine Lang, Roland Brüning, Maximilian Reiser, Gerhard Steinbeck*

458 **Enhanced Detection of Reversible Perfusion Defects by Tc-99m Sestamibi Compared to Tc-99m Tetrofosmin During Vasodilator Stress SPECT Imaging in Mild-to-Moderate Coronary Artery Disease** *Prem Soman, Raymond Taillefer, E. Gordon DePuey, James E. Udelson, Avijit Lahiri*

MYOCARDIAL ISCHEMIA

463 **Myocardial Perfusion Imaging Findings and the Role of Adenosine in the Warm-up Angina Phenomenon** *Peter Bogaty, John G. Kingma, Jean Guimond, Paul Poirier, Luce Boyer, Lyne Charbonneau, Gilles R. Dagenais*

470 **Reduction of Exercise-Induced Myocardial Ischemia During Add-On Treatment With the Angiotensin-Converting Enzyme Inhibitor Enalapril in Patients With Normal Left Ventricular Function and Optimal Beta Blockade** *Ad F. M. van den Heuvel, Peter H. J. M. Dunselman, Tsjerk Kingma, Patrick Verhorst, Frans Boomsma, Wiek H. van Gilst, Dirk J. van Veldhuisen*

ACUTE CORONARY SYNDROMES

475 **Effects of Long-Term, Moderate-Intensity Oral Anticoagulation in Addition to Aspirin in Unstable Angina** *The Organization to Assess Strategies for Ischemic Syndromes (OASIS) Investigators*

485 **Interaction Between Chemokines and Oxidative Stress: Possible Pathogenic Role in Acute Coronary Syndromes** *Pål Aukrust, Rolf K. Berge, Thor Ueland, Ellinor Aaser, Jan Kristian Damås, Lisbeth Wikeby, Anne Brunsvig, Fredrik Müller, Kolbjørn Forfang, Stig S. Frøland, Lars Gullestad*

492 **Therapeutic Value of Eptifibatide at Community Hospitals Transferring Patients to Tertiary Referral Centers Early After Admission for Acute Coronary Syndromes** *Adam B. Greenbaum, Robert A. Harrington, Michael P. Hudson, Cynthia M. MacAulay, Robert G. Wilcox, Maarten L. Simoons, Lisa G. Berdan, Alan Guerci, Dennis V. Cokkinos, Michael M. Kitt, A. Michael Lincoff, Eric J. Topol, Robert M. Califf, E. Magnus Ohman, for the PURSUIT Investigators*

INTERVENTIONAL CARDIOLOGY

499 **The Effects of Contemporary Use of Coronary Stents on In-Hospital Mortality** *Stephen E. Kimmel, A. Russell Localio, Ronald J. Krone, Warren K. Laskey, for the Registry Committee of the Society for Cardiac Angiography and Interventions*

ENDOTHELIAL FUNCTION

505 **Nitroglycerin Withdrawal Increases Endothelium-Dependent Vasomotor Response to Acetylcholine** *Eduardo R. Azevedo, Anne M. Schofield, Susan Kelly, John D. Parker*

510 **Platelet Inhibitory Effect of Nitric Oxide in the Human Coronary Circulation: Impact of Endothelial Dysfunction** *Neil P. Andrews, Mohsin Husain, Nader Dakak, Arshed A. Quyyumi*

517 **Vascular Endothelial Function and Oxidative Stress Mechanisms in Patients With Behçet's Syndrome** *John C. Chambers, Dorian O. Haskard, Jaspal S. Kooner*

BYPASS SURGERY

521 **Early Mortality and Morbidity of Bilateral Versus Single Internal Thoracic Artery Revascularization: Propensity and Risk Modeling** *John P. A. Ioannidis, Othon Galanos, Demosthenes Katritsis, Cliff P. Connery, George E. Drossos, Daniel G. Swistel, Constantine E. Anagnostopoulos*

529 **Coronary Artery Revascularization in Patients With Sustained Ventricular Arrhythmias in the Chronic Phase of a Myocardial Infarction: Effects on the Electrophysiologic Substrate and Outcome** *Josep Brugada, Luis Aguinaga, Lluś Mont, Amadeu Betriu, Jaume Mulet, Ginés Sanz*

ELECTROPHYSIOLOGY

534 **Different Patterns of Atrial Activation in Idiopathic Atrial Fibrillation: Simultaneous Multisite Atrial Mapping in Patients With Paroxysmal and Chronic Atrial Fibrillation** *Fiorenzo Gaita, Leonardo Calò, Riccardo Riccardi, Lucia Garberoglio, Marco Scaglione, Giovanni Licciardello, Luisella Coda, Paolo Di Donna, Mario Bocchiardo, Domenico Caponi, Renzo Antolini, Fulvio Orzan, GianPaolo Trevi*

542 **Single Oral Loading Dose of Propafenone for Pharmacological Cardioversion of Recent-Onset Atrial Fibrillation** *Ijaz A. Khan*

548 **Efficacy and Safety of Out-of-Hospital Self-Administered Single-Dose Oral Drug Treatment**

in the Management of Infrequent, Well-Tolerated Paroxysmal Supraventricular Tachycardia *Paolo Alboni, Corrado Tomasi, Carlo Menozzi, Nicola Bottoni, Nelly Paparella, Giuseppe Fucà, Michele Brignole, Riccardo Cappato*

554 **Lack of Efficacy of Atenolol for the Prevention of Neurally Mediated Syncope in a Highly Symptomatic Population: A Prospective, Double-Blind, Randomized and Placebo-Controlled Study** *Antonio H. Madrid, Javier Ortega, Jose G. Rebollo, Juan G. Manzano, Javier G. Segovia, Andrés Sánchez, Gonzalo Peña, Concepción Moro*

560 Editorial Comment **Can We Assess the Efficacy of Therapy in Neurocardiogenic Syncope?** *Jasbir S. Sra*

562 **A Founder Mutation of the Potassium Channel KCNQ1 in Long QT Syndrome: Implications for Estimation of Disease Prevalence and Molecular Diagnostics** *Kirsi Piippo, Heikki Swan, Michael Pasternack, Hugh Chapman, Kristian Paavonen, Matti Viitasalo, Lauri Toivonen, Kimmo Kontula*

VALVE DISEASE

569 **Risks and Benefits of Adding Anti-Platelet Therapy to Warfarin Among Patients With Prosthetic Heart Valves: A Meta-Analysis** *David Massel, Stephen H. Little*

579 **Reoperation for Prosthetic Aortic Valve Obstruction in the Era of Echocardiography: Trends in Diagnostic Testing and Comparison With Surgical Findings** *Steven E. Girard, Fletcher A. Miller, Jr., Thomas A. Orszulak, Charles J. Mullany, Samantha Montgomery, William D. Edwards, Henry D. Tazelaar, Joseph F. Malouf, A. Jamil Tajik*

ADULT CONGENITAL HEART DISEASE

585 **Outcomes of Late Atrial Tachyarrhythmias in Adults After the Fontan Operation** *Akash Ghai, Louise Harris, David A. Harrison, Gary D. Webb, Samuel C. Siu*

PEDIATRIC CARDIOLOGY

593 **Major Coronary Artery Anomalies in a Pediatric Population: Incidence and Clinical Importance** *Julie A. Davis, Frank Cecchin, Thomas K. Jones, Michael A. Portman*

598 Editorial Comment **Congenital Coronary Artery Anomalies in Young Patients: New Perspectives for Timely Identification** *Antonio Pelliccia*

EXPERIMENTAL STUDIES

601 **Acute Ethanol Exposure Fails to Elicit Preconditioning-Like Protection in In Situ Rabbit Hearts Because of Its Continued Presence During Ischemia** *Maike Krenz, Christopher P. Baines, Xi-Ming Yang, Gerd Heusch, Michael V. Cohen, James M. Downey*

608 **Hypercholesterolemia Impairs Myocardial Perfusion and Permeability: Role of Oxidative Stress and Endogenous Scavenging Activity** *Martin Rodriguez-Porcel, Amir Lerman, Patricia J.M. Best, James D. Krier, Claudio Napoli, Lilach O. Lerman*

616 **Efficacy of Intracoronary or Intravenous $VEGF_{165}$ in a Pig Model of Chronic Myocardial Ischemia** *Kaori Sato, Tiangen Wu, Roger J. Laham, Robert B. Johnson, Pamela Douglas, Jianyi Li, Frank W. Sellke, Stuart Bunting, Michael Simons, Mark J. Post*

624 **Quantitative Assessment of Myocardial Perfusion During Graded Coronary Artery Stenoses by Intravenous Myocardial Contrast Echocardiography** *Elisabeth Leistad, Koji Ohmori, Thomas A. Peterson, Geir Christensen, Anthony N. DeMaria*

632 **Validation of a Digital Color Doppler Flow Measurement Method for Pulmonary Regurgitant Volumes and Regurgitant Fractions in an In Vitro Model and in a Chronic Animal Model of Postoperative Repaired Tetralogy of Fallot** *Yoshiki Mori, Timothy Irvine, Michael Jones, Rosemary A. Rusk, Quynh Pham, Antoinette Kenny, David J. Sahn*

641 **Mechanism of Ischemic Mitral Regurgitation With Segmental Left Ventricular Dysfunction: Three-Dimensional Echocardiographic Studies in Models of Acute and Chronic Progressive Regurgitation** *Yutaka Otsuji, Mark D. Handschumacher, Noah Liel-Cohen, Hiroaki Tanabe, Leng Jiang, Ehud Schwammenthal, J. Luis Guerrero, Lori A. Nicholls, Gus J. Vlahakes, Robert A. Levine*

649 **Impact Directly Over the Cardiac Silhouette Is Necessary to Produce Ventricular Fibrillation in an Experimental Model of Commotio Cordis** *Mark S. Link, Barry J. Maron, Brian A. VanderBrink, Masaaki Takeuchi, Natesa G. Pandian, Paul J. Wang, N. A. Mark Estes, III*

655 **Adventitial Remodeling After Angioplasty Is Associated With Expression of Tenascin mRNA by Adventitial Myofibroblasts** *Kurt Wallner, Behrooz G. Sharifi, Prediman K. Shah, Sumiko Noguchi, Hector DeLeon, Josiah N. Wilcox*

662 **Prevention of Aortic and Cardiac Fibrosis by Spironolactone in Old Normotensive Rats** *Patrick Lacolley, Michel E. Safar, Bernadette Lucet, Katia Ledudal, Carlos Labat, Athanase Benetos*

668 **Soluble Substances Released From Postischemic Reperfused Rat Hearts Reduce Calcium Transients and Contractility by Blocking the L-Type Calcium Channel** *Stephan B. Felix, Verena Stangl, Peter Pietsch, Peter Bramlage, Alexander Staudt, Sabine Bartel, Ernst-Georg Krause, Jörn-Uwe Borschke, Klaus-Dieter Wernecke, Gerrit Isenberg, Gert Baumann*

676 **Redox Regulation of MAPK Pathways and Cardiac Hypertrophy in Adult Rat Cardiac Myocyte** *Koichi Tanaka, Masaaki Honda, Toshikazu Takabatake*

EDITOR'S PAGE

686 **The Family Under Attack** *William W. Parmley*

SPECIAL SECTIONS

ACC News

687 **President's Page: Patient Satisfaction: A Personal Perspective** *George A. Beller*

689 **LETTERS TO THE EDITOR**

MARCH 1, 2001 VOLUME 37 NUMBER 3

REVIEW ARTICLE

691 **Role of Transesophageal Echocardiography-Guided Cardioversion of Patients With Atrial Fibrillation** *Allan L. Klein, R. Daniel Murray, Richard A. Grimm*

CLINICAL STUDIES

MYOCARDIAL ISCHEMIA

705 **The Warm-Up Effect Protects Against Ischemic Left Ventricular Dysfunction in Patients With Angina** *Andrew D. Kelion, Terence P. Webb, Maureen A. Gardner, Oliver J. M. Ormerod, Adrian P. Banning*

711 **Failure to Precondition Pathological Human Myocardium** *Sudip Ghosh, Nicholas B. Standen, Manuel Galiñanes*

719 **Additive Effects of Nicorandil on Coronary Blood Flow During Continuous Administration of Nitroglycerin** *Atsunori Okamura, Hiromi Rakugi, Mitsuru Ohishi, Yoshihiro Yanagitani, Masumi Shimizu, Tadahiko Nishii, Yoshiaki Taniyama, Takashi Asai, Shin Takiuchi, Koichi Moriguchi, Masashi Ohkuro, Norio Komai, Kazuo Yamada, Nozomu Inamoto, Atsuhiro Otsuka, Jitsuo Higaki, Toshio Ogihara*

726 **Regional Myocardial Systolic Function During Acute Myocardial Ischemia Assessed by Strain Doppler Echocardiography** *Thor Edvardsen, Helge Skulstad, Svend Aakhus, Stig Urheim, Halfdan Ihlen*

731 Editorial Comment **Myocardial Strain: Can We Finally Measure Contractility?** *T. P. Abraham, R. A. Nishimura*

735 **Estradiol Supplementation Suppresses Hyperventilation-Induced Attacks in Postmenopausal Women With Variant Angina** *Hiroaki Kawano, Takeshi Motoyama, Nobutaka Hirai, Kiyotaka Kugiyama, Hisao Ogawa, Hirofumi Yasue*

STRESS TESTING

741 **Real-Time Assessment of Myocardial Perfusion and Wall Motion During Bicycle and Treadmill Exercise Echocardiography: Comparison With Single Photon Emission Computed Tomography** *Sarah Shimoni, William A. Zoghbi, Feng Xie, David Kricsfeld, Sherif Iskander, Lisa Gobar, Issam A. Mikati, John Abukhalil, Mario S. Verani, Edward L. O'Leary, Thomas R. Porter*

748 **Real-Time Perfusion Imaging With Low Mechanical Index Pulse Inversion Doppler Imaging** *Thomas R. Porter, Feng Xie, Mary Silver, David Kricsfeld, Edward O'Leary*

754 **Prediction of Mortality Using Dobutamine Echocardiography** *Thomas H. Marwick, Colin Case, Stephen Sawada, Curtis Rimmerman, Patricia Brenneman, Roxanne Kovacs, Leanne Short, Michael Lauer*

ENDOTHELIAL FUNCTION

761 **Radiation Therapy Impairs Endothelium-Dependent Vasodilation in Humans** *Joshua A. Beckman, Avni Thakore, Barbara H. Kalinowski, Jay R. Harris, Mark A. Creager*

766 **Improvement of Coronary Artery Endothelial Dysfunction With Lipid Lowering Therapy: Heterogeneity of Segmental Response and Correlation With Plasma Oxidized Low Density Lipoprotein** *William F. Penny, Ori Ben-Yehuda, Kenji Kuroe, John Long, Alan Bond, Valmik Bhargava, Joseph F. Peterson, Martin McDaniel, Joseph Juliano, Joseph L. Witztum, John Ross, Jr., Kirk L. Peterson*

CORONARY ARTERY DISEASE

775 **Clinical Significance of Antibody Against Oxidized Low Density Lipoprotein in Patients With Atherosclerotic Coronary Artery Disease** *Teruo Inoue, Toshihiko Uchida, Hirotoshi Kamishirado, Kan Takayanagi, Terumi Hayashi, Shigenori Morooka*

780 **History of Anxiety Disorders Is Associated With a Decreased Likelihood of Angiographic Coronary Artery Disease in Women With Chest Pain: The WISE Study** *Thomas Rutledge, Steven E. Reis, Marian Olson, Jane Owens, Sheryl F. Kelsey, Carl J. Pepine, Nathaniel Reichek, William J. Rogers, C. Noel Bairey Merz, George Sopko, Carol E. Cornell, Barry Sharaf, Karen A. Matthews*

MYOCARDIAL INFARCTION

786 **Myocarditis in Patients With Clinical Presentation of Myocardial Infarction and Normal Coronary Angiograms** *Laure Sarda, Patrice Colin, Franck Boccara, Doumit Daou, Rachida Lebtahi, Marc Faraggi, Charles Nguyen, Ariel Cohen, Michel S. Slama, Philippe G. Steg, Dominique Le Guludec*

793 **Prognostic Implications of Restrictive Left Ventricular Filling in Reperfused Anterior Acute Myocardial Infarction** *Giampaolo Cerisano, Leonardo Bolognese, Piergiovanni Buonamici, Renato Valenti, Nazario Carrabba, Emilio Vincenzo Dovellini, Paolo Domenico Pucci, Giovanni Maria Santoro, David Antoniucci*

800 **Expression of an Endothelial-Type Nitric Oxide Synthase Isoform in Human Neutrophils: Modification by Tumor Necrosis Factor-Alpha and During Acute Myocardial Infarction** *Trinidad de Frutos, Lourdes Sánchez de Miguel, Jerónimo Farré, Juan Gómez, José Romero, Pedro Marcos-Alberca, Antonio Nuñez, Luis Rico, Antonio López-Farré*

808 **Quantification of Regional Contractile Function After Infarction: Strain Analysis Superior to Wall Thickening Analysis in Discriminating Infarct From Remote Myocardium** *Marco J. W. Götte, Albert C. van Rossum, Jos W. R. Twisk, Joost P. A. Kuijer, J. Tim Marcus, Cees A. Visser*

HEART FAILURE

818 **Left Ventricular Inotropic Reserve and Right Ventricular Function Predict Increase of Left Ventricular Ejection Fraction After Beta-Blocker Therapy in Nonischemic Cardiomyopathy** *Tarik M. Ramahi, Marcella D. Longo, Arina R. Cadariu, Kate Rohlfs, Stella A. Carolan, Kathryn M. Engle, Habib Samady, Frans J. Th. Wackers*

HEART TRANSPLANT

825 **Detection and Prediction of Acute Heart Transplant Rejection With the Myocardial T_2 Determination Provided by a Black-Blood Magnetic Resonance Imaging Sequence** *Pierre Y. Marie, Michael Angioï, Jean P. Carteaux, Jean M. Escanye, Sophie Mattei, Kiril Tzvetanov, Olivier Claudon, Nathalie Hassan, Nicolas Danchin, Gilles Karcher, Alain Bertrand, Paul M. Walker, Jean P. Villemot*

INTERVENTIONAL CARDIOLOGY

832 **Unprotected Left Main Coronary Artery Stenting: Correlates of Midterm Survival and Impact of Patient Selection** *Alexander Black, Jr, Rosario Cortina, Irene Bossi, Rémi Choussat, Jean Fajadet, Jean Marco*

839 **Preprocedural C-Reactive Protein Levels and Cardiovascular Events After Coronary Stent Implantation** *Dirk H. Walter, Stephan Fichtlscherer, Marc Sellwig, Wolfgang Auch-Schwelk, Volker Schächinger, Andreas M. Zeiher*

847 **Administration of Abciximab to Patients Receiving Tirofiban or Eptifibatide: Effect on Platelet Function** *Eli I. Lev, Julio I. Osende, Merwin F. Richard, Jonathan A. Robbins, Jenny A. Delfin, Oswaldo Rodriguez, Samin K. Sharma, Tim Jayasundera, Juan J. Badimon, Jonathan D. Marmur*

856 **Coronary Artery Stenting in the Aged** *Manish S. Chauhan, Richard E. Kuntz, Kalon K. L. Ho, David J. Cohen, Jeffrey J. Popma, Joseph P. Carrozza, Jr, Donald S. Baim, Donald E. Cutlip*

HYPERTENSION

863 **Effect of the Angiotensin-Converting Enzyme Inhibitor Imidapril on Reactive Hyperemia in Patients With Essential Hypertension: Relationship Between Treatment Periods and Resistance Artery Endothelial Function** *Yukihito Higashi, Shota Sasaki, Keigo Nakagawa, Hideo Matsuura, Goro Kajiyama, Tetsuya Oshima*

871 **Hyperinsulinemia and Hemostatic Abnormalities Are Associated With Silent Lacunar Cerebral Infarcts in Elderly Hypertensive Subjects** *Kazuomi Kario, Takefumi Matsuo, Hiroko Kobayashi, Satoshi Hoshide, Kazuyuki Shimada*

878 **Aldosterone Synthase (CYP11B2) −344 C/T Polymorphism Is Associated With Left Ventricular Structure in Human Arterial Hypertension** *Christian Delles, Jeanette Erdmann, Johannes Jacobi, Karl F. Hilgers, Eckart Fleck, Vera Regitz-Zagrosek, Roland E. Schmieder*

VALVE DISEASE

885 **Prediction of Operative Mortality After Valve Replacement Surgery** *Fred H. Edwards, Eric D. Peterson, Laura P. Coombs, Elizabeth R. DeLong, W. R. Eric Jamieson, A. Laurie W. Shroyer, Frederick L. Grover*

893 **The Effect of Valvular Heart Disease on Maternal and Fetal Outcome of Pregnancy** *Afshan Hameed, Ilyas S. Karaalp, Padmini P. Tummala, Omar R. Wani, Menahem Canetti, Mohammed W. Akhter, Murphy Goodwin, Natalia Zapadinsky, Uri Elkayam*

900 **Percutaneous Balloon Mitral Valvuloplasty in Comparison With Open Mitral Valve Commissurotomy for Mitral Stenosis During Pregnancy** *José A. M. de Souza, Eulogio E. Martinez Jr., John A. Ambrose, Claudia M. R. Alves, Daniel Born, Enio Buffolo, Antonio C. C. Carvalho*

ELECTROPHYSIOLOGY

904 **Global Distribution of Atrial Ectopic Foci Triggering Recurrence of Atrial Tachyarrhythmia After Electrical Cardioversion of Long-Standing Atrial Fibrillation: A Bi-Atrial Basket Mapping Study** *Jiunn-Lee Lin, Ling-Ping Lai, Yung-Zu Tseng, Wen-Pin Lien, Shoei K. Stephen Huang*

911 **Sympathetic Stimulation Produces a Greater Increase in Both Transmural and Spatial Dispersion of Repolarization in LQT1 Than LQT2 Forms of Congenital Long QT Syndrome** *Yasuko Tanabe, Masashi Inagaki, Takashi Kurita, Noritoshi Nagaya, Atsushi Tagushi, Kazuhiro Suyama, Naohiko Aihara, Shiro Kamakura, Kenji Sunagawa, Kazufumi Nakamura, Tohru Ohe, Jeffrey A. Towbin, Silvia G. Priori, Wataru Shimizu*

920 **The Repolarization-Excitability Relationship in the Human Right Atrium Is Unaffected by Cycle Length, Recording Site and Prior Arrhythmias** *Frank Bode, Michael Kilborn, Pamela Karasik, Michael R. Franz*

926 **Alterations in Potassium Channel Gene Expression in Atria of Patients With Persistent and Paroxysmal Atrial Fibrillation: Differential Regulation of Protein and mRNA Levels for K^+ Channels** *Bianca J. J. M. Brundel, Isabelle C. Van Gelder, Robert H. Henning, E. Tuinenburg, Mirian Wietses, Jan G. Grandjean, Arthur A. M. Wilde, Wiek H. Van Gilst, Harry J. G. M. Crijns*

PEDIATRIC CARDIOLOGY

933 **The Fontan Procedure for Tricuspid Atresia: Early and Late Results of a 25-Year Experience With 216 Patients** *Douglas D. Mair, Francisco J. Puga, Gordon K. Danielson*

940 **Balloon Angioplasty for Obstructed Modified Systemic-Pulmonary Artery Shunts and Pulmonary Artery Stenoses** *Jou-Kou Wang, Mei-Hwan Wu, Chung-I Chang, Ing-Sh Chiu, Hung-Chi Lue*

948 Editorial Comment **Concurrent Balloon Dilation of Stenosed Aortopulmonary Gore-Tex Shunts and Branch Pulmonary Arteries** *P. Syamasundar Rao*

EXPERIMENTAL STUDIES

951 **Alpha-Methylnorepinephrine, a Selective $Alpha_2$-Adrenergic Agonist for Cardiac Resuscitation** *Shijie Sun, Max Harry Weil, Wanchun Tang, Takashi Kamohara, Kada Klouche*

957 **Mitochondrial ATP-sensitive K^+ Channels Play a Role in Cardioprotection by Na^+-H^+ Exchange Inhibition Against Ischemia/Reperfusion Injury** *Tetsuji Miura, Yongge Liu, Mahiko Goto, Akihito Tsuchida, Takayuki Miki, Atsushi Nakano, Yasuhiro Nishino, Yoshito Ohnuma, Kazuaki Shimamoto*

EDITOR'S PAGE

964 **Reflections on Attending on the Cardiology Service** *William W. Parmley*

SPECIAL SECTIONS

ACC News

966 **President's Page: Health Care and the 107th Congress** *George A. Beller*

969 **LETTERS TO THE EDITOR**

973 **ADDENDUM**

973 **CORRECTIONS**

MARCH 15, 2001 VOLUME 37 NUMBER 4

REVIEW ARTICLE

975 **Pulse Pressure—A Review of Mechanisms and Clinical Relevance** *Anthony M. Dart, Bronwyn A. Kingwell*

CLINICAL STUDIES

MYOCARDIAL INFARCTION

985 **Stenting Versus Thrombolysis in Acute Myocardial Infarction Trial (STAT)** *Michel R. Le May, Marino Labinaz, Richard F. Davies, Jean-François Marquis, Louise A. Laramée, Edward R. O'Brien, William L. Williams, Rob S. Beanlands, Graham Nichol, Lyall A. Higginson*

992 **Development and Validation of the Ontario Acute Myocardial Infarction Mortality Prediction Rules** *Jack V. Tu, Peter C. Austin, Randy Walld, Leslie Roos, Jean Agras, Kathryn M. McDonald*

998 Editorial Comment **Measuring the Effectiveness of Medical Care Delivery** *James G. Jollis*

ACUTE CORONARY SYNDROMES

1001 **Reactivation of Ischemic Events in Acute Coronary Syndromes: Results From GUSTO-IIb** *Maria Cecilia Bahit, Eric J. Topol, Robert M. Califf, Paul W. Armstrong, Douglas A. Criger, Vic Hasselblad, Amadeo Betriu, Jack Hirsh, Diego Ardissino, Christopher B. Granger*

INTERVENTIONAL CARDIOLOGY

1008 **Survival of Patients With Diabetes and Multivessel Coronary Artery Disease After Surgical or Percutaneous Coronary Revascularization: Results of a Large Regional Prospective Study** *Nathaniel W. Niles, Paul D. McGrath, David Malenka, Hebe Quinton, David Wennberg, Samuel J. Shubrooks, Joan F. Tryzelaar, Robert Clough, Michael J. Hearne, Felix Hernandez, Jr, Matthew W. Watkins, Gerald T. O'Connor, for the Northern New England Cardiovascular Disease Study Group*

1016 Editorial Comment **Coronary Artery Bypass Graft or Percutaneous Coronary Interventions in Patients With Diabetes: Another Nail in the Coffin or "Too Close to Call?"** *Spencer B. King, III*

1019 **Predictors of Diffuse and Aggressive Intra-Stent Restenosis** *Steven L. Goldberg, Arthur Loussararian, Joseph De Gregorio, Carlo Di Mario, Remo Albiero, Antonio Colombo*

1026 **Edge Stenosis and Geographical Miss Following Intracoronary Gamma Radiation Therapy for In-Stent Restenosis** *Han-Soo Kim, Ron Waksman, Yves Cottin, Marc Kollum, Balram Bhargava, Roxana Mehran, Rosanna C. Chan, Gary S. Mintz*

1031 **Preintervention Arterial Remodeling Affects Clinical Outcome Following Stenting: An Intravascular Ultrasound Study** *Hiroyuki Okura, Yoshihiro Morino, Akio Oshima, Motoya Hayase, Michael R. Ward, Jeffrey J. Popma, Richard E. Kuntz, Heidi N. Bonneau, Paul G. Yock, Peter J. Fitzgerald*

STRESS TESTING

1036 **Prognostic Value of Exercise Echocardiography in 2,632 Patients ≥65 Years of Age** *Adelaide M. Arruda, Mini K. Das, Veronique L. Roger, Kyle W. Klarich, Douglas W. Mahoney, Patricia A. Pellikka*

HEART FAILURE

1042 **Predictive Value of Systolic and Diastolic Function for Incident Congestive Heart Failure in the Elderly: The Cardiovascular Health Study** *Gerard P. Aurigemma, John S. Gottdiener, Lynn Shemanski, Julius Gardin, Dalane Kitzman*

1049 **Prognostic Value of Doppler Echocardiographic Mitral Inflow Patterns: Implications for Risk Stratification in Patients With Chronic Congestive Heart Failure** *Alexander Hansen, Markus Haass, Christian Zugck, Carsten Krueger, Kristina Unnebrink, Rainer Zimmermann, Wolfgang Kuebler, Helmut Kuecherer*

1056 **Angiotensin Converting Enzyme (ACE) and Non-ACE Dependent Angiotensin II Generation in Resistance Arteries From Patients With Heart Failure and Coronary Heart Disease** *Mark C. Petrie, Neal Padmanabhan, John E. McDonald, Chris Hillier, John M. C. Connell, John J. V. McMurray*

1062 **Preservation of Venous Endothelial Function in the Forearm Venous Capacitance Bed of Patients With Chronic Heart Failure Despite Arterial Endothelial Dysfunction** *Angus K. Nightingale, Daniel J. Blackman, Gethin R. Ellis, Matthias Schmitt, Jayne A. Morris-Thurgood, Elizabeth A. Jones, Michael P. Frenneaux*

ENDOCARDITIS

1069 **Echocardiography Predicts Embolic Events in Infective Endocarditis** *Giovanni Di Salvo, Gilbert Habib, Valeria Pergola, Jean-François Avierinos, Emmanuel Philip, Jean-Paul Casalta, Jean-Marie Vailloud, Genevieve Derumeaux, Joany Gouvernet, Pierre Ambrosi, Marc Lambert, Ange Ferracci, Didier Raoult, Roger Luccioni*

1077 Editorial Comment **Echocardiography Predicts Embolic Events in Infective Endocarditis** *Shelley Shapiro, Leon Iri Kupferwasser*

VALVE DISEASE

1080 **Cardiocyte Cytoskeleton in Patients With Left Ventricular Pressure Overload Hypertrophy** *Michael R. Zile, G. Randall Green, Gregg T. Schuyler, Gerard P. Aurigemma, D. Craig Miller, George Cooper, IV*

PULMONARY HYPERTENSION

1085 **Pulmonary Artery Pulse Pressure and Wave Reflection in Chronic Pulmonary Thromboembolism and Primary Pulmonary Hypertension** *Vincent Castelain, Philippe Hervé, Yves Lecarpentier, Pierre Duroux, Gerald Simonneau, Denis Chemla*

ELECTROPHYSIOLOGY

1093 **Patients at Lower Risk of Arrhythmia Recurrence: A Subgroup in Whom Implantable Defibrillators May Not Offer Benefit** *Alfred P. Hallstrom, John H. McAnulty, Bruce L. Wilkoff, Dean Follmann, Merritt H. Raitt, Mark D. Carlson, Anne M. Gillis, Hue-Teh Shih, Judy L. Powell, Hank Duff, Blair D. Halperin, and the Antiarrhythmics Versus Implantable Defibrillator (AVID) Trial Investigators*

1100 **Pause-Dependent Polymorphic Ventricular Tachycardia During Long-Term Treatment With Dofetilide: A Placebo-Controlled, Implantable Cardioverter-Defibrillator-Based Evaluation** *Alexander Mazur, Mark E. Anderson, Sharon Bonney, Dan M. Roden*

1106 Editorial Comment **Dofetilide: Is the Treatment Worse Than the Disease?** *Michael R. Lauer*

1111 **Up-Regulation of Inositol 1,4,5 Trisphosphate Receptor Expression in Atrial Tissue in Patients With Chronic Atrial Fibrillation** *Jutaro Yamada, Tomoko Ohkusa, Tomoko Nao, Takeshi Ueyama, Masafumi Yano, Shigeki Kobayashi, Kimikazu Hamano, Kensuke Esato, Masunori Matsuzaki*

NEW METHODS

1120 **Ultrafast Three-Dimensional Contrast-Enhanced Magnetic Resonance Angiography and Imaging in the Diagnosis of Partial Anomalous Pulmonary Venous Drainage** *Victor A. Ferrari, Craig H. Scott, George A. Holland, Leon Axel, Martin St. John Sutton*

PEDIATRIC CARDIOLOGY

1129 **Dilated Cardiomyopathy in Isolated Congenital Complete Atrioventricular Block: Early and Long-Term Risk in Children** *Floris E. A. Udink ten Cate, Johannes M. P. J. Breur, Mitchell I. Cohen, Nicole Boramanand, Livia Kapusta, Jane E. Crosson, Joel I. Brenner, Louise J. Lubbers, Alan H. Friedman, Victoria L. Vetter, Erik J. Meijboom*

EXPERIMENTAL STUDIES

1135 **Quantification of Renal Blood Flow With Contrast-Enhanced Ultrasound** *Kevin Wei, Elizabeth Le, Jian-Ping Bin, Matthew Coggins, Jerrel Thorpe, Sanjiv Kaul*

1141 **Regional Asynchrony During Acute Myocardial Ischemia Quantified by Ultrasound Strain Rate Imaging** *Cristina Pislaru, Marek Belohlavek, Richard Y. Bae, Theodore P. Abraham, James F. Greenleaf, James B. Seward*

1149 **Atherosclerotic Aortic Component Quantification by Noninvasive Magnetic Resonance Imaging: An In Vivo Study in Rabbits** *Gérard Helft, Stephen G. Worthley, Valentin Fuster, Azfar G. Zaman, Clyde Schechter, Julio I. Osende, Oswaldo J. Rodriguez, Zahi A. Fayad, John T. Fallon, Juan J. Badimon*

SPECIAL SECTIONS

ACC News

1155 **President's Page: Cardiologists Under Stress: The Response of the American College of Cardiology** *George A. Beller*

1158 **Newly Elected Members**

APRIL 2001 VOLUME 37 NUMBER 5

BETHESDA CONFERENCE REPORT

1161 **32nd Bethesda Conference: Care of the Adult With Congenital Heart Disease** *Gary D. Webb, Conference Co-Chair, Roberta G. Williams, Conference Co-Chair*

CLINICAL STUDIES

HEART FAILURE

1199 **Surgical Anterior Ventricular Endocardial Restoration (SAVER) in the Dilated Remodeled Ventricle After Anterior Myocardial Infarction** *Constantine L. Athanasuleas, Alfred W. H. Stanley, Jr., Gerald D. Buckberg, Vincent Dor, Marissa DiDonato, Eugene H. Blackstone, and the RESTORE group*

1210 Editorial Comment **Is It Time for a Randomized Trial of Surgical Treatment of Ischemic Heart Failure?** *Robert H. Jones*

1214 **Beneficial Effects of Ramipril on Left Ventricular End-Diastolic and End-Systolic Volume Indexes After Uncomplicated Invasive Revascularization Are Associated With a Reduction in Cardiac Events in Patients With Moderately Impaired Left Ventricular Function and No Clinical Heart Failure** *Lars Kjøller-Hansen, Rolf Steffensen, Peer Grande*

1221 **Effects of Intravenous Brain Natriuretic Peptide on Regional Sympathetic Activity in Patients With Chronic Heart Failure as Compared With Healthy Control Subjects** *Hans P. Brunner-La Rocca, David M. Kaye, Robyn L. Woods, Jacqueline Hastings, Murray D. Esler*

1228 **Effect of Spironolactone on Plasma Brain Natriuretic Peptide and Left Ventricular Remodeling in Patients With Congestive Heart Failure** *Takayoshi Tsutamoto,*

Atsuyuki Wada, Keiko Maeda, Naoko Mabuchi, Masaru Hayashi, Takashi Tsutsui, Masato Ohnishi, Masahide Sawaki, Masanori Fujii, Takehiro Matsumoto, Toshiki Matsui, Masahiko Kinoshita

1234 **Aspirin Inhibits the Acute Venodilator Response to Furosemide in Patients With Chronic Heart Failure** *Pardeep S. Jhund, Andrew P. Davie, John J. V. McMurray*

1239 **Postinfarctional Remodeling: Increased Dye Intensity in the Myocardial Risk Area After Angioplasty of Infarct-Related Coronary Artery Is Associated With Reduction of Ventricular Volumes** *Gianni Destro, Paolo Marino, Enrico Barbieri, Andrea Zorzi, Giovanna Brighetti, Massimiliano Maines, Monica Carletti, Piero Zardini*

1246 **Evidence for Functional Presynaptic Alpha-2 Adrenoceptors and Their Down-Regulation in Human Heart Failure** *Anuradha Aggarwal, Murray D. Esler, Flora Socratous, David M. Kaye*

HEART TRANSPLANT

1252 **Angiography of Potential Cardiac Donors** *Paul J. Hauptman, Kevin J. O'Connor, Robert E. Wolf, Barbara J. McNeil*

ACUTE CORONARY SYNDROMES

1259 **Ticlopidine Versus Aspirin After Myocardial Infarction (STAMI) Trial** *Domenico Scrutinio, Claudio Cimminiello, Ettore Marubini, Maria Vittoria Pitzalis, Matteo Di Biase, Paolo Rizzon, on behalf of the STAMI Group*

1266 **The Effect of Aspirin on C-Reactive Protein as a Marker of Risk in Unstable Angina** *Simon Kennon, Christopher P. Price, Peter G. Mills, Kulasegaram Ranjadayalan, Jackie Cooper, Heather Clarke, Adam D. Timmis*

1271 **Recurrent Unstable Angina After Directional Coronary Atherectomy Is Related to the Extent of Initial Coronary Plaque Inflammation** *Martijn Meuwissen, Jan J. Piek, Allard C. van der Wal, Steven A. J. Chamuleau, Karel T. Koch, Peter Teeling, Chris M. van der Loos, Jan G. P. Tijssen, Anton E. Becker*

1277 **Increased Local Temperature in Human Coronary Atherosclerotic Plaques: An Independent Predictor of Clinical Outcome in Patients Undergoing a Percutaneous Coronary Intervention** *Christodoulos Stefanadis, Konstantinos Toutouzas, Eleftherios Tsiamis, Costas Stratos, Manolis Vavuranakis, Ioannis Kallikazaros, Dimosthenis Panagiotakos, Pavlos Toutouzas*

1284 **Extensive Development of Vulnerable Plaques as a Pan-Coronary Process in Patients With Myocardial Infarction: An Angioscopic Study** *Masanori Asakura, Yasunori Ueda, Osamu Yamaguchi, Takayoshi Adachi, Atsushi Hirayama, Masatsugu Hori, Kazuhisa Kodama*

1289 **Randomized Trial of a Noninvasive Strategy to Reduce Hospital Stay for Patients With Low-Risk Myocardial Infarction** *Peter Bogaty, Serge Dumont, Gilles E. O'Hara, Luce Boyer, Lucie Auclair, Jean Jobin, Jean-Roch Boudreault*

1297 **Risk of Acute First Myocardial Infarction and Use of Nicotine Patches in a General Population** *Stephen E. Kimmel, Jesse A. Berlin, Carolyn Miles, Jane Jaskowiak, Jeffrey L. Carson, Brian L. Strom*

MYOCARDIAL ISCHEMIA

1303 **Real-Time Three-Dimensional Dobutamine Stress Echocardiography in Assessment of Ischemia: Comparison With Two-Dimensional Dobutamine Stress Echocardiography** *Masood Ahmad, Tianrong Xie, Marti McCulloch, Gerard Abreo, Marschall Runge*

1310 **Physiologic Assessment of Coronary Artery Stenosis by Coronary Flow Reserve Measurements With Transthoracic Doppler Echocardiography: Comparison With Exercise Thallium-201 Single-Photon Emission Computed Tomography** *Masao Daimon, Hiroyuki Watanabe, Hiroyuki Yamagishi, Takashi Muro, Kaname Akioka, Kumiko Hirata, Kazuhide Takeuchi, Junichi Yoshikawa*

1316 **Fractional Flow Reserve, Absolute and Relative Coronary Blood Flow Velocity Reserve in Relation to the Results of Technetium-99m Sestamibi Single-Photon Emission Computed Tomography in Patients With Two-Vessel Coronary Artery Disease** *Steven A. J. Chamuleau, Martijn Meuwissen, Berthe L. F. van Eck-Smit, Karel T. Koch, Angelina de Jong, Robbert J. de Winter, Carl E. Schotborgh, Matthijs Bax, Hein J. Verberne, Jan G. P. Tijssen, Jan J. Piek*

INTERVENTIONAL CARDIOLOGY

1323 **Antiplatelet Effects of Abciximab, Tirofiban and Eptifibatide in Patients Undergoing Coronary Stenting** *Franz-Josef Neumann, Willibald Hochholzer, Gisela Pogatsa-Murray, Albert Schömig, Meinrad Gawaz*

1329 **Long-Term Vessel Response to a Self-Expanding Coronary Stent: A Serial Volumetric Intravascular Ultrasound Analysis From the ASSURE Trial** *Yoshiki Kobayashi, Yasuhiro Honda, Leonard G. Christie, Paul S. Teirstein, Steven R. Bailey, Charles L. Brown, III, Ray V. Matthews, Anthony C. De Franco, Robert S. Schwartz, Sheldon Goldberg, Jeffrey J. Popma, Paul G. Yock, Peter J. Fitzgerald*

1335 **Treatment of No-Reflow and Impaired Flow With the Nitric Oxide Donor itroprusside Following Percutaneous Coronary Interventions: Initial Human Clinical Experience** *William B. Hillegass, Neal A. Dean, Laurence Liao, Rodney G. Rhinehart, Paul R. Myers*

ENDOTHELIAL FUNCTION

1344 **Improved Endothelial Function With Metformin in Type 2 Diabetes Mellitus** *Kieren J. Mather, Subodh Verma, Todd J. Anderson*

1351 **Rapid Improvement of Nitric Oxide Bioavailability After Lipid-Lowering Therapy With Cerivastatin Within Two Weeks** *Stefan John, Christian Delles, Johannes Jacobi, Markus P. Schlaich, Markus Schneider, Gerd Schmitz, Roland E. Schmieder*

1359 **Effects of Mental Stress on Coronary Epicardial Vasomotion and Flow Velocity in Coronary Artery Disease: Relationship With Hemodynamic Stress Responses** *Willem J. Kop, David S. Krantz, Robert H. Howell, Michael A. Ferguson, Vasilios Papademetriou, David Lu, Jeffrey J. Popma, John F. Quigley, Marina Vernalis, John S. Gottdiener*

1367 **Attenuation of Endothelin-1 Induced Vasoconstriction by 17β Estradiol Is Not Sustained During Long-Term Therapy in Postmenopausal Women With Coronary Heart Disease** *Pardeep S. Jhund, Nuala Dawson, Andrew P. Davie, Naveed Sattar, John Norrie, Kevin P. J. O'Kane, John J. V. McMurray*

PERIPHERAL VASCULAR DISEASE

1374 **Comparative Effects of Aging in Men and Women on the Properties of the Arterial Tree** *Harold Smulyan, Roland G. Asmar, Annie Rudnicki, Gerard M. London, Michel E. Safar*

1381 **Intermittent Claudication: An Objective Office-Based Assessment** *Ian R. McPhail, Peter C. Spittell, Susan A. Weston, Kent R. Bailey*

ELECTROPHYSIOLOGY

1386 **The N + 1 Difference: A New Measure for Entrainment Mapping** *Kyoko Soejima, William G. Stevenson, William H. Maisel, Etienne Delacretaz, Corinna B. Bruncklhorst, Kristin E. Ellison, Peter L. Friedman*

1395 **Prediction of Sudden Cardiac Death by Fractal Analysis of Heart Rate Variability in Elderly Subjects** *Timo H. Mäkikallio, Heikki V. Huikuri, Anne Mäkikallio, Leif B. Sourander, Raul D. Mitrani, Agustin Castellanos, Robert J. Myerburg*

1403 **Increased Dispersion and Shortened Refractoriness Caused by Verapamil in Chronic Atrial Fibrillation** *Hemanth Ramanna, Arif Elvan, Fred H. M. Wittkampf, Jacques M. T. de Bakker, Richard N. W. Hauer, Etienne O. Robles de Medina*

1408 **Ventricular Tachycardias Arising From the Aortic Sinus of Valsalva: An Under-recognized Variant of Left Outflow Tract Ventricular Tachycardia** *Logan Kanagaratnam, Gery Tomassoni, Robert Schweikert, Stephen Pavia, Dianna Bash, Salwa Beheiry, Mark Niebauer, Walid Saliba, Mina Chung, Patrick Tchou, Andrea Natale*

1415 **Effects of Verapamil and Lidocaine on Two Components of the Re-entry Circuit of Verapamil-Sensitive Idiopathic Left Ventricular Tachycardia** *Takeshi Tsuchiya, Ken Okumura, Toshihiro Honda, Atsushi Iwasa, Keiichi Ashikaga*

NEW METHODS

1422 **Detection of Subclinical Coronary Atherosclerosis Using Two-Dimensional, High-Resolution Transthoracic Echocardiography** *Irmina Gradus-Pizlo, Stephen G. Sawada, Debbie Wright, Douglas S. Segar, Harvey Feigenbaum*

1430 **Noninvasive Detection and Evaluation of Atherosclerotic Coronary Plaques With Multislice Computed Tomography** *Stephen Schroeder, Andreas F. Kopp, Andreas Baumbach, Christoph Meisner, Axel Kuettner, Christian Georg, Bernd Ohnesorge, Christian Herdeg, Claus D. Claussen, Karl R. Karsch*

THROMBOGENESIS

1436 **Increased von Willebrand Factor in the Endocardium as a Local Predisposing Factor for Thrombogenesis in Overloaded Human Atrial Appendage** *Mitsumasa Fukuchi, Jun Watanabe, Koji Kumagai, Yukio Katori, Shigeo Baba, Koji Fukuda, Takuya Yagi, Atsushi Iguchi, Hitoshi Yokoyama, Masahito Miura, Yutaka Kagaya, Shigekazu Sato, Koichi Tabayashi, Kunio Shirato*

VALVE DISEASE

1443 **Activation of the Cardiac Renin-Angiotensin System and Increased Myocardial Collagen Expression in Human Aortic Valve Disease** *Jens Fielitz, Stefan Hein, Veselin Mitrovic, Rainer Pregla, Heinz R. Zurbrügg, Christina Warnecke, Jutta Schaper, Eckart Fleck, Vera Regitz-Zagrosek*

1450 **Assessment of Aortic Regurgitation by Transesophageal Color Doppler Imaging of the Vena Contracta: Validation Against an Intraoperative Aortic Flow Probe** *DuWayne L. Willett, Shelley A. Hall, Michael E. Jessen, Michael A. Wait, Paul A. Grayburn*

VIEWPOINT

1456 **Are All Angiotensin-Converting Enzyme Inhibitors Interchangeable?** *Curt D. Furberg, Bertram Pitt*

EXPERIMENTAL STUDY

1461 **Modulation of Oxidative Stress by a Selective Inhibition of Angiotensin II Type 1 Receptors in MI Rats** *Neelam Khaper, Pawan K. Singal*

EDITOR'S PAGE

1467 **Annual Report** *William W. Parmley*

SPECIAL SECTIONS

ACC News

1469 **President's Page: Convocation Address: "Treat Each Day as Your Last and Each Patient as Your First: A Personal Promise to the Profession"** *Douglas P. Zipes*

1472 **LETTERS TO THE EDITOR**

ACC Clinical Expert Consensus Document

1478 **American College of Cardiology Clinical Expert Consensus Document on Standards for Acquisition, Measurement and Reporting of Intravascular Ultrasound Studies (IVUS)** *Gary S. Mintz, Co-Chair, Steven E. Nissen, Co-Chair*

MAY 2001 VOLUME 37 NUMBER 6

REVIEW ARTICLE

1493 **Endothelin Receptor Antagonists in Congestive Heart Failure: A New Therapeutic Principle for the Future?** *Lukas E. Spieker, Georg Noll, Frank T. Ruschitzka, Thomas F. Lüscher*

CLINICAL STUDIES

RISK FACTORS

1506 **Electron Beam Tomography and National Cholesterol Education Program Guidelines in Asymptomatic Women** *Harvey S. Hecht, H. Robert Superko*

1512 Editorial Comment **Coronary Calcium as a Risk Factor: Role in Global Risk Assessment** *Scott M. Grundy*

1516 **An Insertion/Deletion Polymorphism in the α_{2B}-Adrenergic Receptor Gene Is a Novel Genetic Risk Factor for Acute Coronary Events** *Amir Snapir, Paula Heinonen, Tomi-Pekka Tuomainen, Pia Alhopuro, Matti K. Karvonen, Timo A. Lakka, Kristiina Nyyssönen, Riitta Salonen, Jussi Kauhanen, Veli-Pekka Valkonen, Ullamari Pesonen, Markku Koulu, Mika Scheinin, Jukka T. Salonen*

1523 **Obesity Is Independently Associated With Coronary Endothelial Dysfunction in Patients With Normal or Mildly Diseased Coronary Arteries** *Jassim Al Suwaidi, Stuart T. Higano, David R. Holmes, Jr., Ryan Lennon, Amir Lerman*

1529 **Relationship Between the Angiotensin-Converting Enzyme Genotype and the Forearm Vasodilator Response to Estrogen Replacement Therapy in Postmenopausal Women** *Mitsuhiro Sanada, Yukihito Higashi, Keigo Nakagawa, Shota Sasaki, Ichiro Kodama, Mikio Tsuda, Nobutaka Nagai, Koso Ohama*

1536 **Association of Angiotensinogen M235T and A(-6)G Gene Polymorphisms With Coronary Heart Disease With Independence of Essential Hypertension: The PROCAGENE Study** *José C. Rodríguez-Pérez, Francisco Rodríguez-Esparragón, Octavio Hernández-Perera, Aránzazu Anabitarte, Antonio Losada, Alfonso Medina, Enrique Hernández, Dolores Fiuza, Octavio Avalos, Carla Yunis, Carlos M. Ferrario, for the PROCAGENE Study Investigators*

1543 **New Diagnostic Criteria for Diabetes and Coronary Artery Disease: Insights from an Angiographic Study** *François Ledru, Pierre Ducimetière, Salvatore Battaglia, Dominique Courbon, Fabrice Beverelli, Louis Guize, Jean-Léon Guermonprez, Benoît Diébold*

STRESS TESTING

1551 **Prognostic Stratification of Diabetic Patients by Exercise Echocardiography** *Abdou Elhendy, Adelaide M. Arruda, Douglas W. Mahoney, Patricia A. Pellikka*

1558 **Independent Contribution of Myocardial Perfusion Defects to Exercise Capacity and Heart Rate Recovery for Prediction of All-cause Mortality in Patients With Known or Suspected Coronary Heart Disease** *Lazaro A. Diaz, Richard C. Brunken, Eugene H. Blackstone, Claire E. Snader, Michael S. Lauer*

CORONARY ARTERY DISEASE

1565 **Bradykinin Stimulates the Release of Tissue Plasminogen Activator in Human Coronary Circulation: Effects of Angiotensin-Converting Enzyme Inhibitors** *Kazuo Minai, Tetsuya Matsumoto, Hajime Horie, Naoto Ohira, Hiroyuki Takashima, Hiroshi Yokohama, Masahiko Kinoshita*

MYOCARDIAL INFARCTION

1571 **Twenty-Two Year (1975 to 1997) Trends in the Incidence, In-Hospital and Long-Term Case Fatality Rates From Initial Q-Wave and Non-Q-Wave Myocardial Infarction: A Multi-Hospital, Community-Wide Perspective** *Mark I. Furman, Harold L. Dauerman, Robert J. Goldberg, Jorge Yarzbeski, Darleen Lessard, Joel M. Gore*

1581 **Consequences of Overutilization and Underutilization of Thrombolytic Therapy in Clinical Practice** *Michael Mundt Ottesen, Lars Køber, Stig Jørgensen, Christian Torp-Pedersen, on behalf of the TRACE Study Group*

1588 Editorial Comment **Overutilization and Underutilization of Thrombolysis in Routine Clinical Practice** *Peter Sleight*

1590 **Detailed Endocardial Mapping Accurately Predicts the Transmural Extent of Myocardial Infarction** *Tamir Wolf, Lior Gepstein, Uzi Dror, Gal Hayam, Rona Shofti, Asaph Zaretzky, Gideon Uretzky, Uri Oron, Shlomo A. Ben-Haim*

INTERVENTIONAL CARDIOLOGY

1598 **Continued Benefit of Coronary Stenting Versus Balloon Angioplasty: Five-Year Clinical Follow-Up of Benestent-I Trial** *Ferdinand Kiemeneij, Patrick W. Serruys, Carlos Macaya, Wolfgang Rutsch, Guy Heyndrickx, Per Albertsson, Jean Fajadet, Victor Legrand, Pierre Materne, Jorge Belardi, Ulrich Sigwart, Antonio Colombo, Jean-Jacques Goy, Clemens M. C. Disco, Marie-Angèle Morel, on behalf of the Benestent I Study Group*

AORTIC DISSECTION

1604 **Different Clinical Features of Aortic Intramural Hematoma Versus Dissection Involving the Ascending Aorta** *Jae-Kwan Song, Hyun-Sook Kim, Duk-Hyun Kang, Tae-Hwan Lim, Meong-Gun Song, Seong-Wook Park, Seung-Jung Park*

1611 Editorial Comment **Aortic Intramural Hematoma: From Observation to Therapeutic Strategies** *Susanne Mohr-Kahaly*

VALVE DISEASE

1614 **Specificity of Doppler Echocardiography for the Assessment of Changes in Valvular Regurgitation: Comparison of Side-by-Side Versus Serial Interpretation** *Neil J. Weissman, Julio A. Panza, John F. Tighe, Jr., Susan T. Perras, Harvey Kushner, John S. Gottdiener*

1622 **Long-Term Follow-Up of Atrial Contraction After the Maze Procedure in Patients With Mitral Valve Disease** *Satoshi Yuda, Satoshi Nakatani, Yoshio Kosakai, Masakazu Yamagishi, Kunio Miyatake*

ELECTROPHYSIOLOGY

1628 **Assessment of Noninvasive Markers in Identifying Patients at Risk in the Brugada Syndrome: Insight Into Risk Stratification** *Takanori Ikeda, Harumizu Sakurada, Koichi Sakabe, Takao Sakata, Mitsuaki Takami, Naoki Tezuka, Takeshi Nakae, Mahito Noro, Yoshihisa Enjoji, Tamotsu Tejima, Kaoru Sugi, Tetsu Yamaguchi*

1635 Editorial Comment **Clinical Diagnosis and Risk Stratification in Patients With Brugada Syndrome** *Ihor Gussak, Preben Bjerregaard, Stephen C. Hammill*

1639 **Response to Flecainide Infusion Predicts Long-Term Success of Hybrid Pharmacologic and Ablation Therapy in Patients With Atrial Fibrillation** *Giuseppe Stabile, Antonio De Simone, Pietro Turco, Vincenzo La Rocca, Pasquale Nocerino, Costantino Astarita, Francesco Maresca, Carmine De Matteis, Tommaso Di Napoli, Eugenio Stabile, Dino Franco Vitale*

1645 **Optimized Mapping of Slow Pathway Ablation Guided by Subthreshold Stimulation: A Randomized Prospective Study in Patients With Recurrent Atrioventricular Nodal Re-entrant Tachycardia**

Stephan Willems, Christian Weiss, Mohammad Shenasa, Rodolfo Ventura, Matthias Hoffmann, Thomas Meinertz

1651 **Prolonged Fractionation of Paced Right Atrial Electrograms in Patients with Atrial Flutter and Fibrillation** *Ching-Tai Tai, Shih-Ann Chen, Jyh-Woei Tzeng, Benjamin I. Kuo, Yu-An Ding, Mau-Song Chang, Liang-Yu Shyu*

1658 **Electrophysiologic Characteristics in Initiation of Paroxysmal Atrial Fibrillation from a Focal Area** *Tse-Min Lu, Ching-Tai Tai, Ming-Hsiung Hsieh, Chin-Feng Tsai, Yung-Kuo Lin, Wen-Chung Yu, Hsuan-Ming Tsao, Shih-Huang Lee, Yu-An Ding, Mau-Song Chang, Shih-Ann Chen*

1665 **Multiple Atrial Macro–Re-entry Circuits in Adults With Repaired Congenital Heart Disease: Entrainment Mapping Combined With Three-Dimensional Electroanatomic Mapping** *Etienne Delacretaz, Leonard I. Ganz, Kyoko Soejima, Peter L. Friedman, Edward P. Walsh, John K. Triedman, Laurence J. Sloss, Michael J. Landzberg, William G. Stevenson*

HEART FAILURE

1677 **Relationship of Current and Past Smoking to Mortality and Morbidity in Patients With Left Ventricular Dysfunction** *Neville Suskin, Tej Sheth, Abdissa Negassa, Salim Yusuf*

1683 Editorial Comment **Smoking Cessation in Heart Failure: It Is Never Too Late** *James Lightwood, Kirsten E. Fleischmann, Stanton A. Glantz*

1685 **Dobutamine Echocardiographic Study in Patients With Nonischemic Dilated Cardiomyopathy and Prognostically Borderline Values of Peak Exercise Oxygen Consumption: 18-Month Follow-Up Study** *Ioannis A. Paraskevaidis, Stamatis Adamopoulos, Dimitrios Th. Kremastinos*

1692 **Influence of Carvedilol on Hospitalizations in Heart Failure: Incidence, Resource Utilization and Costs** *Michael B. Fowler, Montserrat Vera-Llonch, Gerry Oster, Michael R. Bristow, Jay N. Cohn, Wilson S. Colucci, Edward M. Gilbert, Mary Ann Lukas, Michael J. Lacey, Randel Richner, Sarah T. Young, Milton Packer, for the U.S. Carvedilol Heart Failure Study Group*

PEDIATRIC CARDIOLOGY

1700 **The Effect of Short-Term Prophylactic Methylprednisolone on the Incidence and Severity of Postpericardiotomy Syndrome in Children Undergoing Cardiac Surgery With Cardiopulmonary Bypass** *Antonio R. Mott, Charles D. Fraser, Jr., Anita V. Kusnoor, N. Martin Giesecke, George J. Reul, Jr., Kathy L. Drescher, Carmen H. Watrin, E. O'Brian Smith, Timothy F. Feltes*

1707 **Minimally Invasive or Interventional Repair of Atrial Septal Defects in Children: Experience in 171 Cases and Comparison With Conventional Strategies** *Roberto Formigari, Roberto M. Di Donato, Ennio Mazzera, Adriano Carotti, Gabriele Rinelli, Francesco Parisi, Luciano Pasquini, Luigi Ballerini*

EXPERIMENTAL STUDIES

1713 **Therapeutic Effects of FTY720, a New Immunosuppressive Agent, in a Murine Model of Acute Viral Myocarditis** *Tadashi Miyamoto, Akira Matsumori, Myung-Woo Hwang, Ryosuke Nishio, Haruyasu Ito, Shigetake Sasayama*

1719 **Angerlike Behavioral State Potentiates Myocardial Ischemia-Induced T-Wave Alternans in Canines** *Julie A. Kovach, Bruce D. Nearing, Richard L. Verrier*

1726 **Transendocardial Delivery of Autologous Bone Marrow Enhances Collateral Perfusion and Regional Function in Pigs With Chronic Experimental Myocardial Ischemia** *Shmuel Fuchs, Richard Baffour, Yi Fu Zhou, Matie Shou, Anthony Pierre, Fermin O. Tio, Neil J. Weissman, Martin B. Leon, Stephen E. Epstein, Ran Kornowski*

1733 **Ablation of Atrial Fibrillation in the Rapid Pacing Canine Model Using a Multi-Electrode Loop Catheter** *Boaz Avitall, Arvydas Urbonas, Scott Millard, Dalia Urboniene, Ray Helms*

1741 **Early Autonomic and Repolarization Abnormalities Contribute to Lethal Arrhythmias in Chronic Ischemic Heart Failure: Characteristics of a Novel Heart Failure Model in Dogs With Postmyocardial Infarction Left Ventricular Dysfunction** *Philip B. Adamson, Emilio Vanoli*

EDITOR'S PAGE

1749 **Changing Guidelines on Conflict of Interest** *William W. Parmley*

SPECIAL SECTIONS

ACC News

1751 **President's Page: The Need for the In(ter)dependent Investigator** *Douglas P. Zipes*

1753 **LETTERS TO THE EDITOR**

JUNE 1, 2001 VOLUME 37 NUMBER 7

REVIEW ARTICLES

1757 **A Remarkable Medical Story: Benefits of Angiotensin-Converting Enzyme Inhibitors in Cardiac Patients** *Mohammed E. Khalil, Abul W. Basher, Edward J. Brown, Jr., Imad A. Alhaddad*

1765 **Chronic Heart Failure and Micronutrients** *Klaus K. A. Witte, Andrew L. Clark, John G. F. Cleland*

CLINICAL STUDIES

HEART FAILURE

1775 **The Effect of Correction of Mild Anemia in Severe, Resistant Congestive Heart Failure Using Subcutaneous Erythropoietin and Intravenous Iron: A Randomized Controlled Study** *Donald S. Silverberg, Dov Wexler, David Sheps, Miriam Blum, Gad Keren,*

Ron Baruch, Doron Schwartz, Tatyana Yachnin, Shoshana Steinbruch, Itzhak Shapira, Shlomo Laniado, Adrian Iaina

1781 **Plasma N-Terminal Pro-Brain Natriuretic Peptide and Adrenomedullin: Prognostic Utility and Prediction of Benefit From Carvedilol in Chronic Ischemic Left Ventricular Dysfunction** *A. Mark Richards, Robert Doughty, M. Gary Nicholls, Stephen MacMahon, Norman Sharpe, Judy Murphy, Eric A. Espiner, Christopher Frampton, Timothy G. Yandle, for the Australia-New Zealand Heart Failure Group*

1788 **Effects of Posture on Cardiac Autonomic Nervous Activity in Patients With Congestive Heart Failure** *Shoichi Miyamoto, Masatoshi Fujita, Hiroyuki Sekiguchi, Yoshiaki Okano, Noritoshi Nagaya, Kinzo Ueda, Shun-ichi Tamaki, Ryuji Nohara, Shigeru Eiho, Shigetake Sasayama*

1794 **Exercise Performance in Patients With End-Stage Heart Failure After Implantation of a Left Ventricular Assist Device and After Heart Transplantation: An Outlook for Permanent Assisting?** *Nicolaas de Jonge, Hans Kirkels, Jaap R. Lahpor, Corinne Klöpping, Erik J. Hulzebos, Aart Brutel de la Rivière, Etienne O. Robles de Medina*

1800 **Circadian Variation in the Effects of Aldosterone Blockade on Heart Rate Variability and QT Dispersion in Congestive Heart Failure** *Kok-Meng Yee, Stuart D. Pringle, Allan D. Struthers*

1808 **Failure of Aldosterone Suppression Despite Angiotensin-Converting Enzyme (ACE) Inhibitor Administration in Chronic Heart Failure Is Associated With ACE DD Genotype** *Mariantonietta Cicoira, Luisa Zanolla, Andrea Rossi, Giorgio Golia, Lorenzo Franceschini, Giulio Cabrini, Alberto Bonizzato, Maristella Graziani, Stefan D. Anker, Andrew J. S. Coats, Piero Zardini*

1813 **Accurate Noninvasive Estimation of Pulmonary Vascular Resistance by Doppler Echocardiography in Patients With Chronic Heart Failure** *Francesco Scapellato, Pier L. Temporelli, Ermanno Eleuteri, Ugo Corrà, Alessandro Imparato, Pantaleo Giannuzzi*

MYOCARDIAL INFARCTION

1820 **Intravenous Atrial Natriuretic Peptide Prevents Left Ventricular Remodeling in Patients With First Anterior Acute Myocardial Infarction** *Masaru Hayashi, Takayoshi Tsutamoto, Atsuyuki Wada, Keiko Maeda, Naoko Mabuchi, Takashi Tsutsui, Hajime Horie, Masato Ohnishi, Masahiko Kinoshita*

1827 **Primary Angioplasty Versus Intravenous Thrombolysis in Acute Myocardial Infarction: Can We Define Subgroups of Patients Benefiting Most From Primary Angioplasty? Results From the Pooled Data of the Maximal Individual Therapy in Acute Myocardial Infarction Registry and the Myocardial Infarction Registry** *Ralf Zahn, Rudolf Schiele, Steffen Schneider, Anselm K. Gitt, Harm Wienbergen, Karlheinz Seidl, Thomas Voigtländer, Martin Gottwik, Gunther Berg, Ernst Altmann, Werner Rosahl, Jochen Senges, for the Maximal Individual Therapy in Acute Myocardial Infarction (MITRA) and the Myocardial Infarction Registry (MIR) Study Groups*

1836 Editorial Comment **The Effectiveness of Primary PTCA: Does Patient Risk Matter?** *Nathan R. Every, Kenneth G. Lehmann*

1839 **Myocardial Infarction After Vascular Surgery: The Role of Prolonged, Stress-Induced, ST Depression-Type Ischemia** *Giora Landesberg, Morris Mosseri, Doron Zahger, Yehuda Wolf, Misha Perouansky, Haim Anner, Benjamin Drenger, Yonatan Hasin, Yacov Berlatzky, Charles Weissman*

ACUTE CORONARY SYNDROMES

1846 **Pre-Infarction Angina Elicits Greater Myocardial Viability on Reperfusion After Myocardial Infarction: A Dobutamine Stress Echocardiographic Study** *Ignacio Iglesias-Garriz, Félix Corral, Miguel A. Rodríguez, Carmen Garrote, Manuela Montes, Eugenia Sevillano*

1851 **Stable Angina and Acute Coronary Syndromes Are Associated With Nitric Oxide Resistance in Platelets** *Yuliy Y. Chirkov, Andrew S. Holmes, Scott R. Willoughby, Simon Stewart, Ronald D. Wuttke, Peter R. Sage, John D. Horowitz*

CORONARY ARTERY DISEASE

1858 **A Randomized Double-Blind Placebo-Controlled Trial of the Effect of Homocysteine-Lowering Therapy With Folic Acid on Endothelial Function in Patients With Coronary Artery Disease** *Jeetendra Thambyrajah, Martin J. Landray, Heather J. Jones, Fiona J. McGlynn, David C. Wheeler, Jonathan N. Townend*

1864 **Plaque Distribution and Vascular Remodeling of Ruptured and Nonruptured Coronary Plaques in the Same Vessel: An Intravascular Ultrasound Study In Vivo** *Clemens von Birgelen, Wolfgang Klinkhart, Gary S. Mintz, Alexandra Papatheodorou, Jörg Herrmann, Dietrich Baumgart, Michael Haude, Heinrich Wieneke, Junbo Ge, Raimund Erbel*

1871 **Antibody Against Oxidized Low Density Lipoprotein May Predict Progression or Regression of Atherosclerotic Coronary Artery Disease** *Teruo Inoue, Toshihiko Uchida, Hirotoshi Kamishirado, Kan Takayanagi, Shigenori Morooka*

INTERVENTIONAL CARDIOLOGY

1877 **Percutaneous and Surgical Interventions for In-Stent Restenosis: Long-Term Outcomes and Effect of Diabetes Mellitus** *Ali Moustapha, Abid R. Assali, Stefano Sdringola, William K. Vaughn, R. David Fish, Oscar Rosales, George Schroth, Zvonimir Krajcer, Richard W. Smalling, H. Vernon Anderson*

1883 **Achieving Optimal Results With Standard Balloon Angioplasty: Can Baseline and Angiographic Variables Predict Stent-Like Outcomes?** *Warren J. Cantor, Anne S. Hellkamp, Eric D. Peterson, James P. Zidar, Patricia A. Cowper, Michael H. Sketch, Jr., James E. Tcheng, Robert M. Califf, E. Magnus Ohman*

1891 **Exercise Training Intervention After Coronary Angioplasty: The ETICA Trial** *Romualdo Belardinelli, Ivana Paolini, Giovanni Cianci, Roberto Piva, Demetrios Georgiou, Augusto Purcaro*

ELECTROPHYSIOLOGY

1901 **Value of Programmed Ventricular Stimulation for Prophylactic Internal Cardioverter-Defibrillator Implantation in Postinfarction Patients Preselected by Noninvasive Risk Stratifiers** *Claus Schmitt, Petra Barthel, Gjin Ndrepepa, Jürgen Schreieck, Andreas Plewan, A. Schömig, Georg Schmidt*

1908 Editorial Comment **Is Programmed Stimulation in Survivors of Myocardial Infarction Helpful?** *John P. DiMarco*

1910 **Recurrence of Symptomatic Ventricular Arrhythmias in Patients With Implantable Cardioverter Defibrillator After the First Device Therapy: Implications for Antiarrhythmic Therapy and Driving Restrictions** *Nahum A. Freedberg, John N. Hill, Richard I. Fogel, Eric N. Prystowsky, the CARE Group*

1916 **Three-Year Follow-Up of Patients With Right Bundle Branch Block and ST Segment Elevation in the Right Precordial Leads: Japanese Multicenter Registry of Brugada Syndrome** *Hirotsugu Atarashi, Satoshi Ogawa, Kenichi Harumi, Tsuneaki Sugimoto, Hiroshi Inoue, Masahiro Murayama, Junji Toyama, Hirokazu Hayakawa, for the Idiopathic Ventricular Fibrillation Investigators*

1921 **Diagnostic Value of History in Patients With Syncope With or Without Heart Disease** *Paolo Alboni, Michele Brignole, Carlo Menozzi, Antonio Raviele, Attilio Del Rosso, Maurizio Dinelli, Alberto Solano, Nicola Bottoni*

ARTERIAL COMPLIANCE

1929 **Post-Prandial Remnant Lipids Impair Arterial Compliance** *Paul J. Nestel, Hideki Shige, Sylvia Pomeroy, Marja Cehun, Jaye Chin-Dusting*

DIASTOLIC DYSFUNCTION

1936 **Difference in the Respiratory Variation Between Pulmonary Venous and Mitral Inflow Doppler Velocities in Patients With Constrictive Pericarditis With and Without Atrial Fibrillation** *Tomotsugu Tabata, Samer S. Kabbani, R. Daniel Murray, James D. Thomas, Ibrahim Abdalla, Allan L. Klein*

1943 **The Impact of Diabetes on Left Ventricular Filling Pattern in Normotensive and Hypertensive Adults: The Strong Heart Study** *Jennifer E. Liu, Vittorio Palmieri, Mary J. Roman, Jonanthan N. Bella, Richard Fabsitz, Barbara V. Howard, Thomas K. Welty, Elisa T. Lee, Richard B. Devereux*

1950 **Effectiveness of Beta-Blocker Therapy After Acute Myocardial Infarction in Elderly Patients With Chronic Obstructive Pulmonary Disease or Asthma** *Jersey Chen, Martha J. Radford, Yun Wang, Thomas A. Marciniak, Harlan M. Krumholz*

LEFT VENTRICULAR HYPERTROPHY

1957 **The Importance of Age and Obesity on the Relation Between Diabetes and Left Ventricular Mass** *Rafael Kuperstein, Patrick Hanly, Mitra Niroumand, Zion Sasson*

VALVE DISEASE

1963 **Quality of Life in Aortic Valve Replacement: Pulmonary Autografts Versus Mechanical Prostheses** *Axel Nötzold, Michael Hüppe, Claudia Schmidtke, Petra Blömer, Thomas Uhlig, Hans-Hinrich Sievers*

PEDIATRIC CARDIOLOGY

1967 **Influence of Ventricular Morphology on Aerobic Exercise Capacity in Patients After the Fontan Operation** *Hideo Ohuchi, Kenji Yasuda, Satoshi Hasegawa, Aya Miyazaki, Motoki Takamuro, Osamu Yamada, Yasuo Ono, Hideki Uemura, Toshikatsu Yagihara, Shigeyuki Echigo*

EXPERIMENTAL STUDIES

1975 **High-Efficiency Endovascular Gene Delivery Via Therapeutic Ultrasound** *Philippe G. Amabile, Jacob M. Waugh, Thomas N. Lewis, Christopher J. Elkins, Wolfgang Janas, Michael D. Dake*

1981 **Cessation of Platelet-Mediated Cyclic Canine Coronary Occlusion After Thrombolysis by Combining Nitric Oxide Inhalation With Phosphodiesterase-5 Inhibition** *Ulrich Schmidt, Richard O. Han, Thomas G. DiSalvo, J. Luis Guerrero, Herman K. Gold, Warren M. Zapol, Kenneth D. Bloch, Marc J. Semigran*

1989 **Stability of Hibernating Myocardium in Pigs With a Chronic Left Anterior Descending Coronary Artery Stenosis: Absence of Progressive Fibrosis in the Setting of Stable Reductions in Flow, Function and Coronary Flow Reserve** *James A. Fallavollita, Michael Logue, John M. Canty, Jr.*

1996 **Angiotensin-Converting Enzyme Inhibition Enhances a Subthreshold Stimulus to Elicit Delayed Preconditioning in Pig Myocardium** *M. T. Jaberansari, Gary F. Baxter, Cecile A. Muller, Sean E. Latouf, E. Röth, Lionel H. Opie, Derek M. Yellon*

EDITOR'S PAGE

2002 **Who Are the Best Role Models for the Fellows?** *William W. Parmley*

SPECIAL SECTIONS

ACC News

2004 **President's Page: The Neighborhood Heart Watch Program: Save A Victim Everywhere (SAVE)** *Douglas P. Zipes*

2006 **LETTERS TO THE EDITOR**

2012 **CORRECTIONS**

JUNE 15, 2001 VOLUME 37 NUMBER 8

CLINICAL STUDIES

ECHOCARDIOGRAPHY

2013 **Physician-Performed Point-of-Care Echocardiography Using a Laptop Platform Compared With Physical Examination in the Cardiovascular Patient** *Kirk T. Spencer, Allen S. Anderson, Ajay Bhargava, Amy C. Bales, Matthew Sorrentino, Kathy Furlong, Roberto M. Lang*

2019 **How Useful Is Hand-Carried Bedside Echocardiography in Critically Ill Patients?**

Gregory M. Goodkin, Daniel M. Spevack, Paul A. Tunick, Itzhak Kronzon

2023 Editorial Comment **Hand-Held Echocardiography: Revolution or Hassle?** *Nelson B. Schiller*

2025 **The Deceleration Time of Pulmonary Venous Diastolic Flow Is More Accurate Than the Pulmonary Artery Occlusion Pressure in Predicting Left Atrial Pressure** *Tim D. Kinnaird, Christopher R. Thompson, Bradley I. Munt*

2031 **Transesophageal Magnetic Resonance Imaging of the Aortic Arch and Descending Thoracic Aorta in Patients With Aortic Atherosclerosis** *Kendrick A. Shunk, Jérôme Garot, Ergin Atalar, João A. C. Lima*

CORONARY ARTERY DISEASE

2036 **Effects of Low-Dose Aspirin on Serum C-Reactive Protein and Thromboxane B_2 Concentrations: A Placebo-Controlled Study Using a Highly Sensitive C-Reactive Protein Assay** *Mark Feldman, Ishwarlal Jialal, Sridevi Devaraj, Byron Cryer*

CORONARY ANGIOGRAPHY

2042 **Randomized Comparison of a Strategy of Predischarge Coronary Angiography Versus Exercise Testing in Low-Risk Patients in a Chest Pain Unit: In-Hospital and Long-Term Outcomes** *Christopher R. deFilippi, Salvatore Rosanio, Monica Tocchi, Rohit J. Parmar, Marjorie A. Potter, Barry F. Uretsky, Marschall S. Runge*

2050 Editorial Comment **Defining the Role of Chest Pain Units** *William R. Lewis, Ezra A. Amsterdam*

UNSTABLE ANGINA

2053 **Clinical Risk Stratification Correlates With the Angiographic Extent of Coronary Artery Disease in Unstable Angina** *Verghese Mathew, Michael Farkouh, Diane E. Grill, Lynn H. Urban, Jack T. Cusma, Guy S. Reeder, David R. Holmes, Jr., Bernard J. Gersh*

INTERVENTIONAL CARDIOLOGY

2059 **Long-Term Mortality Benefit With Abciximab in Patients Undergoing Percutaneous Coronary Intervention** *Keaven M. Anderson, Robert M. Califf, Gregg W. Stone, Franz-Josef Neumann, Gilles Montalescot, Dave P. Miller, James J. Ferguson, III, James T. Willerson, Harlan F. Weisman, Eric J. Topol*

2066 **Incidence of Thrombotic Occlusion and Major Adverse Cardiac Events Between Two and Four Weeks After Coronary Stent Placement: Analysis of 5,678 Patients With a Four-Week Ticlopidine Regimen** *Helmut Schühlen, Adnan Kastrati, Jürgen Pache, Josef Dirschinger, Albert Schömig*

2074 **Emergency Stenting to Treat Neurological Complications Occurring After Carotid Endarterectomy** *Angelo Anzuini, Carlo Briguori, Gary S. Roubin, Salvatore Rosanio, Flavio Airoldi, Mauro Carlino, Paolo Pagnotta, Carlo Di Mario, Imad Sheiban, Giuseppe Magnani, Antonio Jannello, Germano Melissano, Roberto Chiesa, Antonio Colombo*

HEART FAILURE

2080 **Skeletal Muscle Mass Independently Predicts Peak Oxygen Consumption and Ventilatory Response During Exercise in Noncachectic Patients With Chronic Heart Failure** *Mariantonietta Cicoira, Luisa Zanolla, Lorenzo Franceschini, Andrea Rossi, Giorgio Golia, Mauro Zamboni, Paolo Tosoni, Piero Zardini*

DILATED CARDIOMYOPATHY

2086 **Relationship Between Tumor Necrosis Factor-Alpha Production and Oxidative Stress in the Failing Hearts of Patients With Dilated Cardiomyopathy** *Takayoshi Tsutamoto, Atsuyuki Wada, Tetsuya Matsumoto, Keiko Maeda, Naoko Mabuchi, Masaru Hayashi, Takashi Tsutsui, Masato Ohnishi, Masahide Sawaki, Masanori Fujii, Takehiro Matsumoto, Takashi Yamamoto, Hajime Horie, Yoshihisa Sugimoto, Masahiko Kinoshita*

ELECTROPHYSIOLOGY

2093 **Left Ventricular Dysfunction After Long-Term Right Ventricular Apical Pacing in the Young** *M. Victoria T. Tantengco, Ronald L. Thomas, Peter P. Karpawich*

VALVE DISEASE

2101 **Aortic Stenosis With Severe Left Ventricular Dysfunction and Low Transvalvular Pressure Gradients: Risk Stratification by Low-Dose Dobutamine Echocardiography** *Jean-Luc Monin, Mehran Monchi, Virginie Gest, Anne-Marie Duval-Moulin, Jean-Luc Dubois-Rande, Pascal Gueret*

CONGENITAL HEART DISEASE

2108 **Right Ventricular Form and Function After Percutaneous Atrial Septal Defect Device Closure** *Gruschen R. Veldtman, Vanessa Razack, Samuel Siu, Hassan El-Hajj, Fiona Walker, Gary D. Webb, Leland N. Benson, Peter R. McLaughlin*

PEDIATRIC CARDIOLOGY

2114 **Association of Chromosome 22q11 Deletion With Isolated Anomalies of Aortic Arch Laterality and Branching** *Doff B. McElhinney, Bernard J. Clark, III, Paul M. Weinberg, Maura L. Kenton, Donna McDonald-McGinn, Deborah A. Driscoll, Elaine H. Zackai, Elizabeth Goldmuntz*

2120 **Myocardial Flow Reserve in Patients With a Systemic Right Ventricle After Atrial Switch Repair** *Tajinder P. Singh, Richard A. Humes, Otto Muzik, Sambasiva Kottamasu, Peter P. Karpawich, Marcelo F. Di Carli*

EXPERIMENTAL STUDIES

2126 **Effect of Human Recombinant Vascular Endothelial Growth $Factor_{165}$ on Progression of Atherosclerotic Plaque** *Francesca L. Celletti, Paul R. Hilfiker, Paras Ghafouri, Michael D. Dake*

2131 Editorial Comment **Vascular Endothelial Growth Factor-Induced Angiogenesis: Crouching Tiger or Hidden Dragon?** *Douglas W. Losordo, Jeffrey M. Isner*

2136 **Evaluation of the Role of I_{KACh} in Atrial Fibrillation Using a Mouse Knockout Model** *Pramesh Kovoor, Kevin Wickman, Colin T. Maguire, William Pu, Josef Gehrmann, Charles I. Berul, David E. Clapham*

2144 **Left Ventricular Diastolic Dysfunction During Demand Ischemia: Rigor Underlies Increased Stiffness, Without Calcium-Mediated Tension. Amelioration by Glycolytic Substrate** *Niraj Varma, Franz R. Eberli, Carl S. Apstein*

2154 **Differential Effects of Angiotensin AT_1 and AT_2 Receptors on the Expression, Translation and**

Function of the Na^+-H^+ Exchanger and Na^+-HCO_3^- Symporter in the Rat Heart After Myocardial Infarction *Steffen Sandmann, Minghuan Yu, Elena Kaschina, Annegret Blume, Elena Bouzinova, Christian Aalkjaer, Thomas Unger*

SPECIAL SECTIONS

ACC News

2166 President's Page: Complementary and Alternative Medicine: Ignore at Doctors' and Patients' Peril *Douglas P. Zipes*

ACC/SCA&I Expert Consensus Document

2170 American College of Cardiology/Society for Cardiac Angiography and Interventions Clinical Expert Consensus Document on Cardiac Catheterization Laboratory Standards. A Report of the American College of Cardiology Task Force on Clinical Expert Consensus Documents *Thomas M. Bashore, Chair*

ACC/AHA Practice Guidelines

2215 ACC/AHA Guidelines for Percutaneous Coronary Intervention (Revision of the 1993 PTCA Guidelines)—Executive Summary. A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1993 Guidelines for Percutaneous Transluminal Coronary Angioplasty) *Sidney C. Smith, Jr., Chair*

ACC/AHA Practice Guidelines

2239 ACC/AHA Guidelines for Percutaneous Coronary Intervention (Revision of the 1993 PTCA Guidelines). A Report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1993 Guidelines for Percutaneous Transluminal Coronary Angioplasty) *Sidney C. Smith, Jr., Chair*

2240 The American College of Cardiology-National Cardiovascular Data Registry™ (ACC-NCDR™): Building a National Clinical Data Repository *Ralph G. Brindis, Susan Fitzgerald, H. Vernon Anderson, Richard E. Shaw, William S. Weintraub, John F. Williams*